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Comment

MOST Americans in management feel strongly that they do not want a "managed economy" if that means any centralized national control of production. This is neither a paradox nor a contradiction in terms. The tradition of professional management as exemplified in SAM is rooted firmly in enterprise, initiative, self-reliance, self-improvement, freedom of choice. It is the antithesis of arbitrary centralized control whether public or private. Management as we know it is incompatible with regimentation.

But there is an overwhelming popular demand for *somebody* to manage the American economy better after the war. The mass misery of unemployment and stagnation during the early 1930's left its indelible mark on our national consciousness.

There are indications of a great national debate on how this should be done and how it can be done without undue restriction of the liberty of the individual. The subject of debate may be termed full employment, or high-level employment, or high production, or sustained prosperity, or even the prevention of mass unemployment. Concepts differ but the actual specifications are for the most part similar. The specifications call for adjusting the economic machine so that it will work better and will not wreck itself again.

Where does professional management stand in this great national discussion? Do we or should we stand anywhere? Is it any of our business?

It appears to the writer that maintaining the national economy in a condition of health, stability and growth is distinctly a problem in management. Adjustments to keep the economic mechanism of private enterprise in good working order, if they are successful, will be conceived and carried out by men whose minds are equipped with the approaches and the tools of scientific management.

Action to adjust and maintain this delicate and complicated mechanism will of course affect management directly in its job of production, distribution and improvement. That the daily decisions and the long-run plans of private management affect the national economy is not so commonly recognized but is clear on a moment's informed reflection. The national economy is the sum total that operates out of the results of private and public decisions and actions.

Every time we set a price or a wage or a job specification, every time we select a product design or a production machine or a merchandising policy, every time we accept or reject a proposed extension or improvement, every time we help or hinder a workman or an executive to learn and earn more money—we have done something that will modify either the size, the make-up or the product of the total economy. If these millions of separate private and public decisions are not well taken, they will not add up to a sound total and we may then look forward either to recurrent instability or stagnation—or to some form of superimposed decision.

Finally, in so far as the job of maintaining the national economy in working order involves action by government, it becomes essentially a job of management in government.

On all three counts, management men have a duty and an opportunity to participate in the national debate. They must participate as responsible executives in their own private fields if they really wish to preserve their cherished freedom to make individual decisions. They must participate as men trained in the science, art and techniques of management, by advising and guiding the decisions and the actions of their government. They must participate as citizens of influence and leadership toward understanding and harmony among the thousands of private organizations without whom a democratic government cannot possibly succeed.

On these grounds, it seems to this writer highly appropriate that SAM chapters or groups of members can and should take leadership in forming national opinion on this tremendous problem and on specific proposals for solution. It is our responsibility and our privilege to build the national understanding that must underlie wise national action. Clear understanding of the elements of the problem is distinctly within the grasp of men trained to think things through.

SAM H. THOMPSON,
Washington D. C. Chapter.

A PROJECT
IN CO-OPERATIVE THINKING

What are the principles which underlie the practice of a science of management?

We are by no means without guidance upon the answer to this question. The literature of management, as Dr. Harry A. Hopf's thoughtfully selected bibliography in this issue of the Journal indicates, has gone a long way in clarifying this issue.

But principles need periodic restatement in the light of new problems and new outlooks.

Indeed, the relation of principles to sound practice has to be clarified from time to time. For any notion that theory and practice do not progress hand in hand usually suggests an inadequate grasp of the inner nature of both.

How to attack specific management problems can thus be most helpfully understood, where there is the clearest awareness of principles—which are general statements of underlying truth about similar bodies of fact or experience.

Hence, the editors invite letters, articles, references to earlier literature, in which our readers believe they discover the answer to the question:

WHAT ARE THE PRINCIPLES WHICH UNDERLIE THE PRACTICE OF A SCIENCE OF MANAGEMENT?

Future issues of this Journal will incorporate the results of this co-operative exploration.

The Editors

THE SOCIETY FOR THE ADVANCEMENT OF MANAGEMENT
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New York 7, N. Y.

The Challenge of Post-War Employment[1]

IF we are unprepared to meet the economic postwar problem, America may fail in what we all believe is essential for total victory. There is danger in uncritical optimism as well as in economic defeatism.

American leadership properly sized up the job of beating the Axis armies. American leadership set the sights high enough to develop a war program that would do the job. We dare do no less in preparing the tools adequate to accomplish the peace job.

There is too much careless optimism and too little realistic determination about reconversion to prosperity in the days just ahead and especially after final victory.

Jobs and opportunity for all have been declared by both our major political parties to be the main postwar objective of American economic policy. This unity of purpose is the most encouraging aspect of the postwar outlook.

The undersigned are gravely concerned, however, because they find that the same people who hold out the promise of jobs and opportunities shy away from specifying practical measures that will make good the promise.

Jobs and opportunities cannot be created by mere statements of good intentions or hopes. Yet some political and business sources have suggested that all we need to do is to let go and whoop it up, even before Japan is beaten. This kind of optimism is not justified and may do harm.

Cutbacks in War Production—A Terrific Shock

Total cutbacks in war orders mean that industry (of which labor is a part) will lose and must replace roughly half its market and its income. The flow of funds from war expenditures will probably be cut from $90 billion to 70 or to 60 in the next twelve months; to 20 or less soon after V-J Day. To replace enough of this, industry must get 40 or 50 or 60 billions of civilian business it did not have in 1943–4–5. Somebody must buy this output. These somebodies must be both able and willing to spend the money.

Even under the most favorable conditions the absorption of labor in reconverted plants will take some months. People laid off in certain areas may be unable quickly to find the opportunities that exist elsewhere. There can be surplus labor and deficiencies of labor at one time in different places. The same is true with respect to the type of labor released and needed.

Thus even under favorable conditions there will be grave problems of transition which require most skillful planning. The situation will call for boldness as well as skill—boldness based on deep-laid confidence.

Weekly cash pay envelopes from war work are going to drop, and sharply. Peace production simply cannot come back overnight. What will replace this loss of income, loss of pressure at the point of purchase—at the corner grocery store? Unemployment compensation will not be enough. Then what?

Can we rely on people's savings or on their willingness to wait in confidence where they have no savings? If they use their savings for grocery bills, then where is the boom? . . . Backlogs of demand are not safe to count on. We found that out. Cars and houses that were not purchased in 1930–1–2 were never purchased.

The answer, the only real answer, is that cutbacks in war business must be replaced quickly by expansions in production by industry and in purchases by people. People will buy if they have confidence in future jobs.

The Best We Can Do Is Still Hazardous

Careful estimates show a range of unemployment as high as 6 or 8 million within a year or so after V-J Day. Many of these would be veterans, justifiably unwilling to take just any old job. This is bad enough. If business does *not* act promptly and boldly, the situation can get much worse very fast.

Dislocation and disunity can multiply by day and night. Racial and group feelings of injustice can feed upon themselves. It will be the chance of a century for those who organize unrest and build suspicions of unfairness.

These things can happen even while Pacific battles still go on. They cannot be concealed from fighting men. They can produce a picture of domestic chaos that those fighting men will never tolerate.

Men of Good Will Must Get Together

More than ever in this dangerous period of change, men of good will in every group throughout the land must work toward and with each other. To men in leadership we say:

[1] This statement went to the press in June, 1945, as a release from Morris L. Cooke, a member of our Society, and was signed jointly by more than a score of management experts many of whom are also members of the Society. So urgent and timely is its public importance at this hour that it is believed that others will wish to have the full statement in hand and individually to share in constructive thought upon the issues set forth. THE EDITORS.

To Businessmen: Act quickly, carefully, and boldly toward action and expansion. Work *with* your workers and their leaders; they are your customers. Their buying power, *if they use it,* is the driving force. Help to find ways whereby labor won't have to take cuts in take-home pay, as you hope you don't take cuts in profits . . . Watch your prices. In the name of free enterprise, take some risks.

To Labor Leaders: This will be a time for firmness—but for prudence. Keep production up and keep costs down; your people are their own customers. Set your own house in order. As far as possible adjust organizational differences after we pass these dangerous curves.

Farmers: You have been and are particularly protected. Doubtless you deserve protection, but don't abuse it . . . Act boldly on your own account if you really do believe America has a future. Buy that tractor, build that barn, improve that woodlot, send that kid to college . . . More than the rest of us, yours is the opportunity to act as moderator. You are capitalist and worker, employer and hired hand, buyer and producer; help the rest of us to find the common ground. Help the leaders of good will in other groups to come together.

Government People from the town hall to the White House and the Capitol at Washington: Keep your eye on the ball as never before. Think back to the wise, bold men who founded our nation and brought it through the times of peril in the past . . . Watch the problems of inflation that are still to come, but don't get caught neglecting the immediate and pressing danger of deflation . . . Act always toward and not away from unity; help and foster men of good will, the bold men, the constructive men, the men who want to unify our effort . . . Act boldly in your own sphere toward a bigger, better country, toward better opportunity for every man and woman and all the groups and all the regions.

To All Groups: Watch for signs of good will elsewhere—there is much, there should be more, there has to be enough; but you must meet it halfway.

Why Can't We Have Prosperity in Peacetimes

There is certainly no lack of need for peacetime goods.

The medical records of the draft boards, the living conditions in cities and on the farms, the worn-out equipment of industry and agriculture, the underdeveloped regions within and outside the United States, all testify that there are potential markets for everything we can possibly produce.

But in considerable part the trouble is that money earned in production does *not* always become active purchasing power of those who want to buy the product. That is what causes simultaneously idle capacity and unfilled needs. That is what poses the problem the Government must help to solve and can solve.

If a strong wind of optimism blows over the country and sweeps wartime controls away before reconversion has restored peacetime capacity, a restocking boom may develop into postwar inflation. If such a boom occurs, it will be a house of cards and will collapse like the inventory boom at the end of the first World War and the speculative boom at the end of the "New Era."

Looking into the future, we can see that there are ample markets for all products of agriculture and industry *if* we only understand how to activate them. This requires a consistent national program in which business, agriculture, and labor—as well as Federal, State and local governments—must play their roles.

Such a national policy must combine a great many various programs. There must be programs related to fiscal measures and taxation, developmental programs, monopoly control, wages and hours, prices, credit, social security, foreign economic relationships, and others. All these must fit together to sustain a high level of consumer purchasing power and business expansion, which in turn is geared to the growth in consumer purchasing power and to the increase in individual productivity.

If individuals are assured of job security and business is assured of growing markets, the Government's direct contribution to the creation of jobs can be kept to the desirable minimum. Confidence in ourselves and our government is the essential basis . . . If your government does not deserve your confidence, vote and throw it out.

Responsibility for a National Program

Business depressions, panics, and unemployment were in the past accepted as natural catastrophies, like crop failures. The principle that Government has a responsibility to provide favorable economic conditions has emerged only gradually over the last few decades; but this principle is now fully recognized. Mass failure of business, general collapse of values, and mass unemployment of workers after the war will not be tolerated. Failure by Government to discharge

this responsibility would endanger our free institutions in peace after they have triumphantly passed the test of war.

With the tools of policy available to the Federal Government, it is possible to *prevent* disastrous booms and slumps—if we are determined to use the tools and use them wisely.

Specifically

To prove that it is possible to formulate practical, specific measures that will merit general acceptance, here are some of the details that we believe should be included in a national postwar program:

The people through their Government should:

1. Provide adequate funds for drawing engineering plans and specifications for needed public works—Federal, State and local—so that these can be started quickly but only if the letdown comes.
2. Provide *adequate* programs for social security.
3. Assure materials for full-employment peacetime use, by increasing the reserves of materials likely to be scarce.
4. Relax, as far as possible, wartime controls that interfere with individual initiative by management and labor; but—
5. Protect free private enterprise, by management and labor, against unnatural restraints both public and private; whether exercised through monopolistic controls or market influences or financial power or patent manipulation or otherwise.
6. Watch the danger of deflation. Take whatever steps are necessary to keep purchasing power effective and thus maintain living standards.
7. Maintain the integrity of our fiscal and banking structure by controlling prices against wild inflation and by formulating rational policies for taxation.
8. Interpret the rules, or change the rules, to help the men who are trying to make the country grow—the bold men, the real enterprisers, the real creators.
9. Coordinate all these actions for economy, effectiveness and harmony.

Private enterprise during this difficult time, the moment it has the opportunity of action, should:

1. Start your war workers off with a generous payment in lieu of notice when cutbacks come. They need it and will spend it.
2. Catch up on deferred maintenance. This is something that you can do promptly, and that you ought to do anyway, that will help to bridge the gap.
3. Don't raise prices except where absolutely necessary. Go after volume. Mass production needs mass markets and mass markets need low prices. Look to your distribution; is it geared to mass consumption?
4. Talk things over with your workers. You have to live with them. They have to live with you.
5. Start a systematic program to increase the output of your people so that you can raise their wages so that our economy can work. Good industrial engineers know how.

To all men of good will we say: Get together and stay together on fundamental things. It is easy to disagree. Agreement takes work. Emphasize, repeat, the areas and objectives of agreement; recognize conflict, but build on unity where you find it, or can make it . . . In an America that is growing and dynamic, there will be time and opportunity to straighten out the conflicts. If we sink back into stagnation, if we fall out among ourselves, we shall lose the chance. If we are *not* going places, we are sunk . . . The road ahead is dangerous, but passable if men of *good will* do the steering. Get together!

Organization, Cost and Profit

A Study of Dynamic Inter-relations

By OSWALD KNAUTH*

AN organization of any kind is expensive to develop and maintain. This is especially true of a business organization.

Business may be divided into two sharply separated parts: on the one hand that which consists of a series of separate products and trades, each of which is an entity in itself, and totally completed when it is finished; and on the other that which consists of an organized series of products and trades, with large capital involved, with many individuals counting on steady employment, dependent on continuity. Earnings on invested capital take time to mature. The future is more important than the present. While there may be some blurring of the distinction in border line cases, yet the two are different in conception, in type of problem and in the attitude of the manager. The trader is in and out, looking for loopholes; the manufacturer or the merchant organizes for the long run. Shares of stock bought and sold on the Stock Exchange, an auction sale, agricultural products sold in an open market, are extreme cases of the first type. The products sold by a large manufacturing concern, or a great store located on a valuable piece of ground, each dependent on tomorrow's business as a continuation of today's, are examples of the second type. It is with the latter that this analysis is concerned.

An organization is defined as the total entity—consisting both of internal structure and external relations. It is that which is carried at a stated value on the balance sheet as capital, in terms of a formalized figure, which may or may not have any relation to actual worth. Internally, it is the structure which is prepared to accomplish production: the men and women, each capable of performing certain tasks; the machines; the necessary space; the lay-out; the raw materials; the operating cash; the patents and other devices; all of these are part of the mechanism. Externally, it is the part which supplies the continuing demand for those products. The relations with customers and knowledge of their requirements; the acquaintance of the public with the type and quality of product; the good will which keeps them coming back, and encourages others; the contracts involved; the knowledge of markets; taken together, they constitute the guaranty of the future.

The function of management is to keep all these elements in balance: bolstering the weak points and keeping the strong points from running away with expenses.

A trader can step into a situation, and then step out. He can bide his time while in search of another situation that appears to offer possibilities. He can employ his capital or keep it idle. He deals in fluid products, easily interchangeable for other products or for cash. Ready marketability is the essence of his philosophy. It is around the trader-psychology that classical economists built their theories of value and competitive price.

Not so with an organization. It is there to stay. Its value is dependent on the fact that it is a going concern. In liquidation, it normally has little or no net worth. The Amoskeag Mill was an exception, and even here the value consisted of the extra-organizational assets. By the time the liquid assets are disposed of, and negotiations for the sale of the fixed values are completed, it is fortunate indeed if the debts are all cleared. The elimination of any essential part of an organization converts the remainder into odd items which may or may not have value, if an attempt is made to sell them. To the possible purchaser, they may just fit in, or they may be just off-color. Taken piecemeal, at a forced sale, the most excellent stock of goods or materials rapidly dwindles to junk, often costing as much to sell and remove as its value.

While it is indeed true that trading acuteness helps in an organization, yet it does so only at the fringes. Too great acuteness is apt to damage good will to an extent that is not justified by the momentary profit. No great business organization has ever been erected on a basis of trading skill alone. It can only have been achieved on a foundation of value delivered. Even on the buying side, sharp trading can be so overdone as to develop an ill will which will prove costly in the future. It is a wise merchandising precept to allow a fair profit to the manufacturer.

No concern operates in a vacuum. It is dependent on outside conditions for its continuity. Given a period of reduced demand, the trader counts on sitting tight

* Formerly Treasurer, R. H. Macy & Company; formerly President, Associated Dry Goods Company.

with his cash balance waiting for new opportunity, or he may even be selling short. He is dependent on his smartness and quick wits. If he guesses wrong, he has nothing left. But in such a period, the organization manager turns his whole attention to maintaining his position—interior and exterior. His careful calculations of balance are thrown aside; everything goes wrong. He can only hope for a renewal of demand while his organization, interior and exterior, is still intact. He can economize here and there; but only in driblets; not enough really to matter materially. For too great economy will cause the disintegration of his organization, and the loss of his trade position. If he loses his organization then he has lost everything. To rebuild it would take time and money far in excess of any saving that could be accomplished. That is why some businesses regain their full position after a depression, and others sink into obscurity.

The contrast may be put in another way: the trader operates almost solely on direct costs. But the organization management operates on a variate of joint costs: the costs of today and the costs of building for the future. These costs inter-twine to a point that makes their accounting separation one of arbitrary distinctions. The extent to which future safeguards dominate present needs is the measure of wisdom of management.

With this introduction, the way is cleared for an analysis of the balance of organizations, the costs and the profits.

II. The Problem of Balance

The prime object of management is to keep the organization constantly in balance. All its functions must be attuned to one another, so that a coordinated working of the whole is accomplished. This means that weaknesses are continually sought out and corrected. If sales are not being made at a rate sufficient to keep the productive section busy, then pressure must be exerted to bring about the desired increase. Perhaps this may mean a higher calibre of personnel; perhaps more advertising; perhaps an opening up of a new market.

Likewise, the production balance must be constantly studied in an attempt to maintain an even flow at a minimum cost. Insufficient space cramps the operation, and too much space causes needless expense. Raw materials must be always on hand. Skilled operators must be proportioned to the machines, and to the less skilled operators. Inspectors must be sufficient to examine the finished products. If some flaw develops, either in the raw product or its processing, research must be directed to its correction. Contingent reserves must be maintained. The bookkeeping system must record the necessary data, and yet not be overstaffed.

These adjustments are the result of necessity as it develops; they can be said to be predetermined in only the roughest way; and they often exceed expectations. They are justified in terms of the rest of the organization.

This continual balancing of operations presents a series of normally simple problems, which become puzzling either in a new organization, or under conditions of change. The point is that they have individually only a remote relation to the cost per unit of product, or to the success of the venture as a whole.

Obviously, maximum smoothness of operation is achieved under conditions which approach the static. Indeed, this need of the static has become increasingly important as mass production methods have been applied to more and more articles. Change of any kind requires a rearrangement of operation, and its consequent expense. Notwithstanding its ultimate benefit, temporary loss is unavoidable.

Accordingly, there results a postponement of action on the part of management, until the desirability or necessity of a shift is clearly evident. In fact, such postponement is often justified, for the new circumstances may turn out to be temporary. Such judgments are difficult to make, since industrial forces operate cumulatively, and there is never a fixed point when questions are beyond debate. Tendencies that are evident for a long time may or may not develop to a point of importance. Frequent changes, especially reversions, bruise the morale of the personnel, and lessen confidence.

The Ford Motor Company drove this principle to the limit in its early policy on model T cars. While the rest of the industry was improving its product, Ford was lowering prices. Not until the situation approached a crisis did they convert to a new model having all the latest devices. Indeed, the entire automobile industry is an interesting study. With many minor, and some major, improvements occurring continually, it has been able to confine its shifts to the yearly introduction of new models. By this means, it has attempted to assure for itself a considerable period of uninterrupted mass production.

During this war, the Army Supply Forces found it necessary to issue a general order prohibiting all change in specifications unless a definite saving of life were involved. The manner of introducing the

new and more convenient French telephone sets by the Telephone Company was a masterly conversion with minimum loss.

Conditions rarely remain static for any prolonged period of time. The complexity of industrial forces is ever introducing new pressures and innovations to which the organization must be sensitive. A limited degree of flexibility is therefore prudent even under the best of conditions. This will be developed further in the next section.[1]

While a static organization appears to the outside—and superficial—observer to be extraordinarily stable, yet in fact it is apt to be in a more precarious situation than one adjusted to meeting the inevitable forces of change as they arise. Sometimes, indeed, static conditions seem to last a long time. But not forever. The more static conditions appear to be, the more fundamental and drastic are the impending shifts. Too fine an adjustment to the forces of the moment decreases the ruggedness which can withstand unexpected developments.

It is noteworthy that there is scarcely an article of common consumption that had its exact counterpart twenty-five or thirty years ago. And those which have remained technically the same have generally changed in their social and economic importance.

Take the case of flour, which would appear on any list of staples. A generation ago, it was sold by the barrel, and the name "Gold-Medal" was a family by-word. Today it is sold by the pound to consumers. It is sold by the carload, on specification, to manufacturers. Its equivalent is marketed in the form of bread, crackers, breakfast foods. Apart from the decrease in the per capita consumption of wheat, owing to dietary shifts, the reorganization which was forced on flour manufacturers has been dramatic.

Checked gingham is exactly the same article that it has always been, in count of fineness and in appearance. Yet once it was the standard for aprons, house dresses and curtains. Today, it is occasionally introduced as an article of high fashion. Pearls are still pearls, and diamonds still diamonds. But the place which they occupy in the social life of the day has greatly fallen. Their possession is no longer an indispensable mark of distinction.

The quality of coal is unchanged, (unless it has improved) but its position in industry is now shared by oil, natural gas, and even electricity. The prime position of railroads in land transportation has been undermined by motor trucks, buses, automobiles, and airplanes. Even the telegram in modern business life has lost its unique place. Long distance telephones are better for some purposes, teletypes for others, and airmail for still others.

In the developing industries, shifts of technique and demand are of frequent occurrence. Fortunately, they are generally of a minor character, so that a series of adjustments is appropriate to meet the new situations as they develop. This condition is graphically described by Mr. Frank B. Jewett, in an article written for the 35th Anniversary of Lybrand, Ross Bros. and Montgomery, 1933.[2]

Moreover, public response to change is never immediate. It takes time for the news to filter down through many layers before consumers become aware and take advantage of new devices and improvements. There is almost no way of hurrying this process. Many expensive campaigns have been undertaken to accelerate knowledge, but with few exceptions, they have been effort wasted. It is still true that peaches must be allowed to ripen before they are fit to eat. During this delay, costs continue while receipts mount but slowly. The fruition of change usually costs twice as much and takes twice as long as the advance estimate.

Whenever expansion is clearly foreseen, it becomes incumbent on management deliberately to sacrifice the balance based on conditions of the present, in order to prepare the groundwork for the balance of the future. The new building must be larger than present conditions warrant; skilled operators must be trained—and carried—during the period of training; the new machines must have capacity for presently unused production; they must be aligned for efficiency of the morrow, rather than of the day. Perhaps it is wise to acquire, and allow to lie fallow, a future source of raw material, as was done many years ago by the

[1] Perhaps the role of business man as desirous of static conditions is overstressed in contrast to his role as innovator. This is done consciously, for innovation always means uncertainty, and hence is harmful to a going concern. A great outpouring of criticism was directed at business for its delay in converting to the war economy of 1941. This was inevitable. It is easy to criticize from the outside the acts of those carrying the burden and responsibility. Innovation comes more naturally to the opportunist, and organization is antipathetic to opportunism. The criticism is mainly directed at the pre-war preparation; once the situation had clarified, business organizations adjusted themselves with remarkable speed.

[2] "Further, in industry the entire scope and character of the science machine is altered. Thirty-five years ago each branch of industry was essentially without danger of attack from without. Now, because the power of scientific research is primarily in the trained brains of men and the methods they employ rather than in their fund of accumulated special knowledge, no industry based on science is free of danger from the most unexpected quarter. Any industry possessed of an efficient research organization can direct its attack against almost any objective."

"For many industries, large and small, real judgment as to their future stability and prospects requires that we know fully about their attitude toward the science on which they are based. . . . An efficient industrial research organization does not necessarily mean a great aggregation of individuals or a huge annual outlay of money. What it does mean is a picked group of competent men thoroughly trained to handle the tools of science and organized into an efficient team closely coordinated with all the other functions of the industry."

United States Steel Company in its purchase of the Mesabi Range. Such long term, speculative acquisitions are the regular practice of the oil companies. At any time, they have under development but a small fraction of the total acreage of their productive properties. For several years after its opening, Saks Fifth Avenue was too large to justify its volume of business. When Macy's moved from 14th to 34th Street, its owners feared that their calculations had miscarried, and resulted in a mausoleum instead of a market place.

The expenses of a growing business are out of balance as long as growth continues. A new organization, or an old organization undergoing revision, is bound to develop many frictions, both of personality and function, which hamper efficiency. It takes time, and the growth of new habits, to eliminate these wastes. Only when hopes have been fulfilled, and a new static level (relative) has been reached, will expenses fall into balance with the total volume and with each other.

III. The Problem of Costs

The costs of an organization are the antithesis of profit. In the sense that costs are increased to build a sounder organization, they ensure the profits of the morrow. But they reduce the profits of the moment. If costs of maintenance and research are reduced, profits mount; but at an increased risk of the future.

An accounting procedure which would capitalize those costs having to do with an improvement in organization, as contrasted with those having to do with its maintenance, is conceivable. But the lines are narrow. They are hard to draw in advance. Perhaps they could be judged with more accuracy in retrospect. But the training and natural conservatism of accountants tends to classify them all as costs, rather than as capital assets.

To a considerable extent, there is a free choice whether costs or profits shall be sacrificed; but in a larger sense, costs are self-determining, and management can only steer its way through a troubled sea as best it can. The conditions under which it operates often preclude that freedom of choice which is the dream of harassed enterprise.

The costs of building and maintaining an organization are divided rather sharply between internal and external factors. The internal factors are devoted to performing the operations which produce goods and services. The external factors are devoted to advertising and making known the products; to pleasing the customers; to guaranteeing performance; to opening up new markets; to creating good will and avoiding ill will.

More puzzling is the set of problems which keeps the total concern going. An organization is a living thing. Hence it does not invariably function perfectly. It is always undergoing change. Can the wastes be kept within bounds? Or how can they be reduced? More space increases efficiency; but too much becomes expensive.

If there is no time off for new experiments; if inventions are not sought out and tried, then decay sets in. Rivals make a better product. Markets change, and the product must change with it. Yet, too much of this change is disrupting. It is a matter of nice judgment whether the amounts spent on maintenance exactly maintain the value of the capital good on which they are spent; or whether they merely maintain its present ability to function without taking into account the general wear and tear which will some day become evident; or whether the amounts spent actually increase the functioning and even make it last a longer time. If this is difficult for a single machine, how much more difficult it is to estimate the average effects on a great number of machines, such as normally comprise an organization.

Research has become an established institution in every industry. Taken together, the methods and products developed by systematic striving have been at the bottom of industrial growth. But the costs, especially in individual cases, are staggering. Among outstanding examples, are the General Electric Company, the Dupont Company, the General Motors Company; but they are merely typical of a widespread practice. Their expenditures are considered as part of the cost of organization, but the cost of any year will not fructify until some future date, and some of it will never fructify.

The internal costs of an organization which hopes to survive in future years are far beyond, and quite apart from, the costs of manufacturing those same articles if they are viewed from a day to day cost basis. It will frequently be found that a small manufacturer can make a single article, like an electric toaster, more cheaply than can a large, multi-sided organization. For a time, he may be able to do very well; but when a shift in taste or custom or technique takes place, he is in a precarious position. If he lacks ability to readjust, has no accumulated goodwill, no surplus capital, his business just evaporates.

The types of managers also are different. In the case of the opportunist concern, they are keen, alert, adventurous. In the large concern they are wise, cautious, thoughtful and experienced. Rarely does any one man fully embody all these qualities.

The external elements of most organizations are more varied and more capricious than the internal.

While the purchaser searches eagerly for the product of which he feels a need, the position of the seller forces him to search even more avidly for the disposal of his product. His internal organization must be maintained by a constant flow of work.

Advertising policy is dominated by fear. Hope creeps in just sufficiently to emphasize the dominant role of fear. In its simple conception, advertising is simply an announcement of products for sale, accompanied by a statement of their virtues and their prices. Through a series of developments, it has become a pressure force, backed by all the psychological tricks of repetition, analogy and association which may convert a product into a national institution. A permanent and regular flow of demand is basic to organized industry. It is the fear of losing this place in the social structure that spurs organizations to extravagant and apparently wasteful expenditures.

And in this fear there is much reason. Sweet Caporal cigarettes, Fatima cigarettes, Sapolio, Lydia Pinkham's Pills, Fletcher's Castoria were once national institutions, but have lost their place. Why take a chance by failing to advertise? Viewed as an insurance, the extravagance is a relatively small expense. The chief concern of manufacturers in converting to war production is the fear that the identity of their product may be lost. It has nothing to do with current profits, which indeed are assured by their war contracts. Hence the feverish stream of advertising of articles unobtainable as long as the war lasts, and the discussion as to whether this is a proper cost of war production.

Good will is a generic term for the relations which have become established in the course of time, causing customers to return and thus ensuring a continuation of demand. It is sound practice to maintain a policy of creating an added good will with every transaction. But the negative aspect of good will is fear of ill will, and this is far more potent. For if any transaction or contact creates ill will it is not merely neutral: it is positively injurious.

On many balance sheets, the item of good will is carried at a fixed sum. There is justification in this, for good will is difficult and expensive to achieve. Conservative balance sheets write it down to one dollar; other computations place it at an amount that was actually paid in a previous sale of the business or at a capitalization of past earnings. In any case, it is a dubious figure, but a definite reality lies back of it.

No balance sheet, however, carries a minus item as ill will. And yet ill will is just as positive and real as good will. It is not neutral; it dominates future actions. Almost anyone will take a chance on a new contact; but an unfortunate experience in the past may cut off all future transactions.

In the simplest case, one does not go to a restaurant again if a previous visit has resulted in poor service or a badly cooked meal. One prefers to try a new restaurant. Similarly, a past unfortunate purchase in a particular store—often many years ago—will restrain future purchases there. Or a visit which indicated inadequate selection will remain in the mind of a potential purchaser for many years, even though that fault was corrected long ago. It is a positive disadvantage which is difficult—perhaps impossible—to overcome.

Perhaps the largest scale example of ill will is that achieved by the railroads. The phrase attributed to Commodore Vanderbilt many years ago "The public be damned" has crystallized the hostile sentiment. Even though the origin of this phrase was a misinterpretation, nevertheless it has stuck. The true story is that one night, after a gruelling day of inspection, the Commodore was awakened in his stateroom and asked to meet reporters. When he tried to demur, someone told him that the public would appreciate a statement from him. Thoughtlessly, and half asleep, he ejaculated "Let me sleep—the public be damned." Thereafter, every petty rudeness by every conductor and ticket agent was interpreted in this sense. Few travellers today approach a railroad station without a chip on their shoulder.

Strenuous efforts have been made to counteract this hostility. Notably, the Baltimore and Ohio Railroad has established standards of courtesy that are a model, and many people select travel on this road in spite of other inconveniences.

The liability of ill will is not included in railroad balance sheets. But it is included in low market valuation of railroad securities which reflect the appraisal of scant sympathy which railroads may expect in their dealing with the regulating agencies of government.

Air transport companies have to contend with definite factors of ill will: fear of accident, and uncertainty of time schedules on account of weather conditions. To counter these disadvantages, they have resorted to enormously expensive policies. Accidents are minimized at any cost. If conditions are unfavorable, trips are called off and planes grounded for days. Records of passenger miles without accident as compared to other forms of travel are widely publicized. Every effort is made to establish the normality of air travel. When planes are grounded, train reservations, meals, even hotels, are provided, and the expense is cheerfully borne. No effort is spared. Courtesy and sympathy could go no further. No loophole is left for the growth of ill will. Through this policy, the misfortune of ill will is largely avoided.

Every manufacturer dreads the ill will of his customers—mainly merchants. Hence he sets up an expensive system of inspection to ensure the maintenance of his established standard of perfection. The difference between first quality, second quality and rejects is at best an arbitrary line—it may have nothing to do with serviceability. But it does constitute a standard which is known, and recognized by all users. Any deviation from this practice engenders distrust and ill will. Slips occur under any system; but they cannot occur too often and they must be corrected—promptly and cheerfully. Even imaginary slips must be corrected. The unexpected failure of a metal alloy to withstand heat; the difficulties encountered by china manufacturers in adopting the moving tunnels in place of the kilns; the early disasters of celanese in runs and cleaning; these are but examples of the losses which have continually to be borne and made good. Such errors lead to bankruptcy in small concerns. In large organizations, they lead to a never ending series of losses.

The guarantees, expressed and unexpressed, are the assurance of continuity in the future. And in this respect the established business is always at a disadvantage with the buyer who can more easily shift. The manufacturer normally makes but a few products. His customer, the merchant, deals in a great variety and can change from one product to another. And the final consumer is completely free to go where he will.

Every merchant fears the growth of ill will as the death knell of his organization. He keeps his ear to the ground to note the possibilities of its growth either through mouth-to-mouth channels or through public accusations. Consequently the effects of accusations made by the OPA or by the Department of Justice have a terror far greater than the fines and punishments which they might entail. The very fact of the charge is the damage which he fears. Its later verification or dismissal by a court is of small importance.

Similarly, the repetition of unfavorable comments in private has a devastating effect. It either keeps potential customers away, or leads to a suspicious attitude which hampers and delays the day's business. Hence the establishment of an elaborate machine to correct minor errors—far out of proportion in cost to the value of the errors.

As an economy becomes more organized, the opportunities of engendering ill will increase. Articles are bought sight unseen, as canned goods, cigarettes, candies, toilet goods, and even shirts. No inspection will disclose the wearing quality of shoes, for the essential features are hidden. Should any of such articles later become suspect to the purchaser, there will be no repeat order. The manufacturer is given no opportunity to explain. His carefully nurtured reputation, built over a long period, may vanish overnight. Hence more and more elaborate systems of inspection to maintain quality become a necessity, and a lavish policy of correcting errors is introduced. The far-flung organizations, with their accompanying economies, rest on a more precarious basis of public good will than is generally conceded by their critics.

No small part of the costs of an organization have to do with public relations. Taken together, these cover a wide range, and they are neglected at the peril of early demise. For they help to bind the organization into the local or national scheme of things.

One aspect is the position of the industry as a whole, which is generally looked after by a trade organization, supported by individual contributions which may be considerable. The normal practices of an industry frequently come under fire as the conscience of the community changes. Advertising statements that were common usage a generation ago, would not be tolerated today. The labelling of packages was so flamboyant as to cast a pall of dishonesty over all concerned. Sensing the danger to their reputations, newspapers and merchants set about to raise industry standards. Trade Associations were enlivened; Better Business Bureaus were formed; Government reforms were welcomed. Individual concerns, in their own interest, went far afield to effect a reform which removed a future threat to their general standing. It was lack of a similar general reform of standards that brought the Stock Exchange to its present status. On the other hand, the banking system, supported by

individual banks, is highly organized to watch over the general effect of particular acts. Local, state, and federal associations exact a heavy toll in dues and work on the member banks. Even beyond the contributions, the thought and work of higher executives may become burdensome. In addition, are chambers of commerce, both local and national; and those associations having some special purpose in mind—like tariffs, theft prevention, accident prevention and a host of others.

Chain stores attempted to forego their share in local church festivals, libraries and other activities, until widespread resentment forced them to recognize this expense as legitimate and undertake their share of civic betterment. On the contrary, large department stores have owed no small portion of their success to a policy of always leading the list of contributors to every civic movement—and indeed searching out channels of their own whereby to benefit the community. Notable among these are Bamberger's in Newark and Dayton's in Minneapolis. One store, Lord & Taylor, has solidified its position as a leader in fashion by giving away each year a number of prizes to those making an outstanding contribution to art in industry.

Many organizations employ an officer with no other duties than to build good will in its broadest sense. He is a member of charity boards; he is a leader in civic affairs, such as arranging dinners for prominent persons or causes; he devotes great energy to War Loan drives; he attends conventions; he straightens out petty tangles. Rarely does his work show in tangible results, but its effect is noted in the easing of strain. Negotiations are consummated more quickly in a genial background.

The excess profits tax has at times encouraged this form of institutionalizing. For if the expense can be written off as a cost, then it is mainly borne by government. Notable in this field has been the giving away of Pepsi Cola in service canteens, thus helping to establish a habit at little cost.

Another example is the launching of the Chicago Sun during a period when its initial expenses were bound to be large. No such new enterprise could be expected to return profits until it became established and a proper balance had been struck between circulation, advertising receipts and expenses. With the passage of time, such balance becomes more and more probable; and meanwhile the losses can be written off to reduce taxes.

The campaigns of institutional advertising now being carried on by many concerns are done primarily to attempt to maintain their names and those of their products before the public; but their extent is encouraged through the fact that they lower the excess profits taxes to an extent almost commensurate with their costs.

IV. The Problem of Profit

Mr. George May states that the profit of an enterprise can be determined only when it is finally wound up.[3] Up to that time, it is a matter of estimate, resting on many accounting conventions and controlled guesses, involving rates of obsolescence and depreciation, allocation in point of time of expenditures, experiments, reserves and contingencies of various kinds, valuation of current and fixed assets. This could be done by hindsight with a fair degree of accuracy; the foresight on which current statements of profits are made is a poor guide. Perhaps a five or ten year basis might be fairly accurate; the customary one year basis is indeed a problem; and the quarterly statements of profits of most corporations which are being more and more required have little validity of any sort.

Take, for example, any seasonal industry. It is quite common that the fall volume is about fifty per cent higher than the spring volume. If rent, depreciation, and other fixed expenses are charged on an equal monthly basis, then the expenses allocated will be quite different from an allocation based on comparative volume. Yet contracts for rent are occasionally made on a volume basis, as well as on a fixed basis.

Again, take the value of inventory. No matter how carefully this is taken, its value depends on a judgment of its future saleability. Reserves may be large or small. At the moment, with the memory of World War I as a guide, reserves are being piled up. At times, reserves, created for a situation which did not occur, may be written back into earnings, so that they swell the profits of a later period. The recently adopted practice of accounting to include such gains or losses in the earnings of the year increases the chance timing of items.

Should expected losses be allowed to accumulate over the year, and then written off when their exact amount has been ascertained? In this case, they would be allocated in their entirety to the last period of the year. Or should some rough estimate be made, and charged against each period? Either method is theoretically defensible, but the allocations of costs

[3] Financial Accounting. A distillation of experience, MacMillan & Co., 1943.

will vary widely. In addition, the estimates may prove too large or too small.

Many expenses of maintenance are naturally undertaken during the slack periods. Should these be charged against the month in which they occur, or should they be spread over the year, and if so in what ratio?

More important than all is the allocation of taxes. For the correct method must take into account the total taxes for the year, which can itself not be known until the year is ended. Hence, the allocation for any period in advance is a stab in the dark; especially so, because these taxes have been in operation for so short a time that precedents have not yet been built up. By selecting one or the other equally logical—or illogical—theory, profits by periods will be found to vary widely, and even vitiate comparisons with the past.

The arbitrariness of semi-annual statements of profit is emphasized in quarterly reporting. Only an intimate knowledge of methods and factors entering the history of the period in question can possibly approximate a correct interpretation. Yet the public is being educated to take them more and more seriously. A cost accountant of wide experience, Mr. Alvin R. Jennings, expresses himself as follows:

> "The question, as I see it, is not one of the use, or utility, of present day statements but rather one of avoiding, if we can, the misuse of such statements by those who are not so well informed as the management or the independent public accountant who examines the statements."

In so far as general conditions remain fairly stable, and the methods of estimating are unchanged, such results have a certain degree of comparative value in some industries, such as utilities and railroads, more than in manufacturing or distribution. But violent fluctuation has been the order of the day during the last few decades. There comes a point, therefore, at which a nice question of judgment is posed whether the error of a constant method under changed conditions is greater than a shift of method which is constructed to reflect the changes. Unhappily, there is no fixed rule which can be followed to define this point. Only by an examination of the facts involved can such a point be determined. This calls for decision, based on trained opinion. And trained opinions can, and will, differ.

Until recently, the trend of judgments inclined to err on the downward side in estimating profits—being the corollary to erring on the upward side in estimating costs. It was considered sound practice to charge depreciation rates at a maximum amount; to set aside contingency reserves; to choose the lowest possible method of valuing inventory. This led to the growth of so-called hidden reserves, which in some cases were supposed to be so large as to affect market values, and thus partially nullify the very purpose they were intended to serve.

For the purpose of estimating the market value, the natural procedure followed was one of capitalizing profits, rather than using book figures. But, again, such a method is vitiated if there is a constant understatement of profits, which itself leads to a cumulative understatement of book values. Hence it follows, that the market value of one organization is capitalized at one rate of discount, and a second at another rate. This is supposed to be justified by the greater certainty of the maintenance of the rate of profit. But in bad times, such an indicated rate may only be attained by changing the methods of bookkeeping—i.e., charging less than usual to depreciation, obsolescence, and reserves of various kinds. Of course, such a change can be made and justified on the grounds that these reserves are already ample, and need not be increased further. Which may well be true, in so far as there is any abstract standard of truth.

The element of question which arises from such a method is that a rate of profits is indicated which is more steady than would have been indicated by a fixed rate of charges.

Into this scheme of things has recently entered the Treasury Department, charged with the duty of collecting taxes based on profit; and armed with power to examine and determine the bases on which these profits are calculated. In their efforts to collect high taxes they have completely changed the morals of those business officials and accountants whose duty it was to estimate and announce profits. Their pride in being "conservative" in their estimates and judgments suddenly was converted into an accusation of understating profits to evade taxes.

Rates of depreciation, which are at best only guesses, were reduced. Expenses which had been charged to current operations were capitalized and spread over several succeeding years.

The Treasury has now been actively interested in maximizing the annual announced profit for over a decade, and in so doing it, of course, tends to diminish the profit in ensuing years. It happens that during these years the taxes on profits have constantly increased—at first slowly, but of recent years at an accelerated pace. The effect of the Treasury's activity in forcing upward the estimate of profit during the

early years has therefore tended to deprive the Government of the benefits of high taxes on high profit in the later years. The extent of this loss has not been, and perhaps cannot be, arrived at. But current observations appear to indicate that it is considerable.

The insistence of the Treasury in deferring expenses, and thus increasing estimated profit for the year in hand, has frequently been considered by the officials of business and accountants to go so far beyond any proper interpretation of the facts as to mislead the public. They dare not publish the resultant profits. Within limits, of course, such various calculations may be accepted, for such a question is in the realm of opinion. Beyond a certain point, however, the traditions of conservatism which dominated the morality underlying published statements could not be violated. There has thus grown up the necessity of a double set of bookkeeping values—often in the form of memos, one reflecting Treasury estimates and used for tax purposes; the other reflecting business judgments and used for published reports. These tend to diverge more and more as the years roll by and cumulate the results of the two methods.

The effect of the Securities Exchange Commission on estimates of profits is not so clear. In general, they have accepted the statements of accountants, whose training causes them to incline to underestimate. In addition they have shown a strong tendency, which might be called a policy, of insisting on the writing off of capital assets. This has contradictory effects: once the assets are written off, the ratio of profits to capital is increased; but in so far as the write offs are taken out of profits, these are decreased. And this effect may be more than temporary; it may last over a number of years.

In the case of public utilities, this pressure to the reduction of capital assets furnishes the regulating commissions with a weapon for lowering rates, when earnings appear out of proportion. In other cases, it takes the line of writing off the intangible assets, especially good will. The solid ground on which this rests is that good will is not permanent, and may evaporate. Similarly, real estate values may shrink.

The drastic application of this policy affects the surplus to an extent which at times converts it into a deficit. Since dividends can only be paid out of surplus, they must be passed until the deficit is wiped out. Even dividends on conservative preferred shares with adequate earnings are passed. Such conditions lead to compromise, which spreads the effect over a period of years, but in the meantime reduces the amount available for dividends.

The final statement of earnings is an adjustment which is arrived at after endless discussion of opposing viewpoints of business officials, public accountants, Treasury officials, and the Securities Exchange Commission. It satisfies none. And it gives little help to the outsider, who has not participated in the discussions. Any judgment regarding the nature and permanence of the forces which tended to drive the reported earnings up or down, requires a highly technical analysis, based on facts not normally at the disposal of the public.

Profits have no invariable relation to efficiency. Changes in the industrial structure occur so rapidly that a strategic advantage of one year becomes an incubus the next. Once capital is sunk it is only in part, if at all, retrievable, or useful for some other purpose. Obsolescence often antedates deterioration. Many situations come to exist in which any proximate hope of profit is futile. These may be local, or industry wide.

Local situations are known to everyone. But perhaps it is not so clearly recognized that profits or their absence also characterize intra-corporate divisions. In the field of retail merchandising, for instance, certain departments almost never yield any profits: among these are house furnishings, drugs, sheets and towels, house dresses. Certain others are equally well recognized as high profit departments, such as silk goods, upholstery, hosiery. A large number, of course, are either profitable or not, according to the excellence of management. Going a step further down, certain articles are always profitless, such as cigarettes and sugar.

The question will be raised whether variations in profits are due to poor accounting. This does not seem to be the case. Rather it is due to the fact that accounting must, in so far as possible, be a system with definite rules which cannot be adapted to every part of a varied situation. Were costs to be distributed arbitrarily, for the purpose of indicating an even flow of profits, then the comparative value of accounting would be lost. A more likely reason for these persistent variations appears to be partly traditional, and partly the diverse nature of the merchandise handled in one method. A drug or variety chain store is organized to handle articles of small value; a jewelry or rug or furniture store is organized to deal in expensive articles. But a department store or mail order house

deals in them all, and it must do so under one method. Exceptions are confusing to customers. No single method can escape a certain amount of ill-adaptation in individual application. Moreover, profitless departments cannot be dropped without a loss of trade position which may be more serious than the loss of profits.

Turning to the other end of the scale, whole industries may be profitless for many years at a stretch. Notable among these is the rubber industry, in spite of the vast demand for its products and the acknowledged excellence of its management. Perhaps this was the result of its difficult struggle for survival.

Most dramatic are the situations where a concern is largely dependent on one customer, when that customer decides to satisfy his needs from some other source. Such dependence is temporarily profitable, but risky. It is, however, quite a common occurrence. Automobile companies are in large degree assemblers of parts bought from specialists: wheels, tires, spark plugs, bearings, bodies, are examples. The mail order houses have at times taken the entire product of manufacturers.

It seemed natural to the owner-managers of corporations such as were common prior to the year 1900 that profits should be substantially distributed in the form of dividends. This was a carry-over from the habits engendered by personally owned business. The early custom was accordingly a small interim payment around the middle of the year, followed at its conclusion by such distribution as was justified.

With the growing complexity of corporate structure arose the practice of retaining some part of the earnings in the business. "A dollar for surplus against every dollar for dividends" was the highly applauded slogan of the Pennsylvania Railroad. Bonds came to have indentures limiting the payment of dividends, and indebtedness was retired out of earnings. The safeguarding of senior investments was the governing policy of financial practice. Profits were drifting away from dividends.

The further separation of ownership from management brought the philosophy of limited and assured dividends. While these could never be put on a basis of safety comparable with interest on loans and wage payments, yet the ideal might be approached. After all, neither interest payments, nor the job itself, nor the wage rates, were completely safe. Today, it is the boast of a few corporations that some dividend was paid during each year of the last thirty or forty years. The stockholder looks on ownership as a source of income, and wants assured dividends; substantial, if possible, but assured. A considerable fraction of these stockholders are women; another large fraction are retired men; and no small proportion are educational and philanthropic institutions.

Latterly has arisen the disruptive influence of high income tax rates. In those cases where corporations are family or group dominated, calculations show that savings are better preserved in the corporation, than in individual ownership. Such avoidance of taxes, based on an arbitrary definition of income, which stresses its conversion into cash rather than its actual incidence, has led to the plugging of loopholes. Congress and the Treasury Department have created a series of highly technical laws and rulings. These, in turn, have led to the conduct of business dominated by the incurring or avoidance of taxes, rather than by judgment. There appears to be no real solution to the problem, so it must remain a game of "hide and seek," or perhaps more accurately "blind man's buff."

Just as the ideal of a fixed and relatively secure dividend rate appeared to become translated into established fact, arose the confused conditions of the thirties. These patently rendered its achievement impossible. Even the most solidly grounded organizations were forced to bow before the storm. The American Telephone and Telegraph Company was among the few which held stubbornly to its established rate, in spite of insufficient earnings, which it was hoped would prove to be temporary. Owing to the wide distribution of its shares in minute proportions, directors felt a peculiar obligation to satisfy, as long as possible, the need of owners dependent on income. Up to date, they have succeeded.

But, by and large, the uncertainty of the times has caused a reversion of stock ownership to a position of the residuary risk capitalist. Extra year end dividends have become more and more common. Nevertheless the ideal of continuity as preferable to variability remains, and a resumption or increase of dividends is seldom condoned, unless the future offers more than a fair chance of its maintenance. The majority of most boards of directors have little personal interest involved, and their desire to avoid criticism overcomes their spirit of adventure. The occasional directors who have substantial holdings have found that any increased income they might receive has evaporated in taxes. These influences, together with the uncertain costs of reconversion, have combined to lift reserves against contingencies to maximum levels.

These retained earnings have an effect far beyond that on future dividends, for at the same time they strengthen the position of senior security holders and employes. They will not easily give up this added safety. The surplus may never accrue to the stockholders. In so far as this tendency becomes a fixed practice, it is thus consonant with the shift of the stockholder from exercise of ownership to a claimant of income.

At best, an estimate of short term profit is a hazy concept. At its worst, and the present period is one when it is at its worst, an estimate is nothing better than informed guess. Unfortunately, this haziness is concealed through the apparent exactness of the reported statements in dollars and cents. This exactness is misleading, and will cause many tragic errors of overconfidence in the future.

V. Concluding Observations

The foregoing analysis is based on the principle that the trader costs and profits and organization costs and profits stand on different planes. The trader operates from one situation to another, so that he may compare a series of costs to a series of gains, resulting in a series of profits or losses.

The organization is an institution of considerable permanence, interested mainly in its position of the future. Its costs are directed toward maintaining the organization which will turn out an endless stream of products, which in turn are continually sold. Costs do not have that close relation to income which is frequently assumed. The management can affect the process only within limits. Beyond these limits the organization suffers. The problem of management is one of continual adjustment to the changes of industry. Its hope of profits lies in its ability to produce a stream of products which can in total be sold for more than the costs, and to lay the groundwork for its enduring. It acts on faith that a well conceived and well managed organization in a groove determined by its fixed capital and policies will continue to pay its fixed expenses plus a surplus by means of a series of adjustments which are practicably possible.

Whether these profits will be large or small depends on a mixture of internal and external factors. The demand for its product may be larger than expected, in which case revenues will mount faster than expenses. Or it may be that demand will shift to other competitive products, in which case deficits result. The importance of greater or less demand than expectation is crucial, for there is a fairly fixed point below which expenses cannot be reduced consistent with the maintenance of the organization. Such increase or decrease of demand may be due to the skill of management, or its lack; or it may be due to outside developments. Both play a part, and the question of which is the deciding factor is difficult to determine.

Once the capital is sunk and the strategic policies are set, the fortunes of the institution can be modified by management, but not greatly altered. Under a happy set of breaks, with keen management, the profits may be very large indeed; under a series of misfortunes and indifferent management deficits will result. These combinations may have a considerable degree of permanence, and the former appear to have a quality analogous to monopoly. But advantages are difficult to maintain, for the forces of disintegration are also operative. Situations change and managements become complacent.

A large organization, when it is actually a grouping of many small organizations, has a high degree of permanence; but its total success is not apt to be startling. Through its diversification, petty adjustments can be constantly made and losses written off, while the successful lines are pushed. In this way, the character of the organization may, in the course of time, be completely altered. Such developments, however, merely hide the individual changes under a cloak of averages.

The industrial organizations of today are neither competitive in the classical sense, nor monopolistic in any complete sense. The terms "imperfect competition" and "monopolistic competition" which have become popular during the last years, do not describe the operation. Akin to this, is the new term "administered price" when it is used as an indication of monopoly power. If administered prices are defined as prices set by the seller, with the choice left to the prospective buyer of either accepting the offer or passing it by, then this practice is common throughout all industry. The only exceptions would be auctions, markets or individual trades. Administered prices which are widely rejected must be altered, until sales result. When actual sales fall below expectation, it is evidence that this original price set was a miscalculation of demand.

If the actions of industrial organizations are to be judged, then their processes of operation must be understood. It is toward a correct interpretation of these processes that this analysis has been directed.

Soundings in the Literature of Management

*Fifty Books the Educated Practitioner Should Know**

BY DR. HARRY ARTHUR HOPF

President, Hopf Institute of Management, Inc., Ossining, N. Y.

FOREWORD

WHEN the Pan-American Committee of the New York Chapter of the Society for the Advancement of Management was organized, it sought a simple and direct program. The committee wanted to avoid duplication of the work for Latin-America carried on by so many agencies. It wanted to direct its efforts to the field of management.

At a luncheon meeting of representatives of management in Washington it was stated that the Office of the Coordinator of Inter-American Affairs would be interested in sending to Latin-America sets of books that would present the basic principles of the art and science of management. It was essential that the list be short but that the scope be wide. The question was where to get such a list, for it was recognized that it could be prepared only by someone grounded in the divers philosophies and techniques of management in this country and abroad. These considerations led to the unanimous selection of Dr. Harry Arthur Hopf.

Dr. Hopf gladly cooperated and took time from his busy life to prepare the desired list. His knowledge, experience, broad reading and critical faculty, aided by the extensive library of the Hopf Institute, provided the foundation for compiling such a condensed list. The product of his labors, slightly amplified, as stated by him, and supplied with illuminating annotations not included in the original list, appears in the following pages. Due to the limitations imposed, many good books have necessarily been omitted; doubtless, too, there will not be universal agreement regarding the value of all the books selected.

It is a significant fact, nevertheless, that whenever the list is mentioned, someone wants to see it; every time it is read, out comes a pencil to note the names of books someone is impelled to read, knowing that they must be important. The value of the list lies in the authoritative knowledge which has entered into its preparation. Now that it is to be made generally available in the English speaking countries of the world, students everywhere will unquestionably benefit greatly from the sound guidance furnished by one of our foremost scholars in management.

R. OAKLEY KENNEDY
Chairman, Pan-American Committee,
Society for the Advancement of Management

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DURING the course of his service on the bench, a well known American judge sustained an impressive but undeserved reputation for wisdom by the simple expedient of keeping lawyers and litigants in the dark concerning the reasons underlying his decisions. One day, however, in an unguarded moment, he launched into a long and detailed explanation of the basis for a judgment rendered by him. It proved so unconvincing that his intellectual prestige suffered a blow from which it failed to recover.

This story should perhaps be regarded as an admonition when undertaking to explain the basis of preparation of a list of books on management. It would, of course, be relatively easy for any qualified student of the field to bring together a list of pertinent works and, without supporting comment, put it into circulation as the product of his thought and judgment. To follow such a course would, however, it seems to me, vitiate much of the value that might otherwise be extracted from a project of this character. The usefulness of such a list to students of the field cannot but be enhanced if, first of all, the points of departure adhered to in preparing it are carefully explained, and then each book is annotated in sufficient detail to convey a clear and objective characterization of its scope and quality.

Apart from the foregoing considerations, it appeals to me as essential to place a definite limit upon the number of books that the list should contain. Naturally, any limit that may be set is exposed to the criticism of being arbitrary; but, from a practical viewpoint, it has the virtue of compelling the exercise of keen discrimination in the process of selection and the precise balancing of a number of factors calling for objective judgment.

Perhaps a brief explanation of the genesis of the list published in these pages will be of interest. Some months ago, a group of prominent men in Washington extended to me an invitation to prepare a list of books on management, to be circulated in Latin-American countries by the Office of the Coordinator of Inter-American Relations. Mr. R. Oakley Kennedy, who wrote me in behalf of the group, stated that it was desired to confine the list to twelve "must" books and twenty "recommended" books.

Much as I was in sympathy with the proposed limitations, I realized at once that the problem of classification presented certain difficulties. This was especially true because works dealing with various aspects of "scientific management" could not be ignored, despite the fact that they belong to a period which is today to a large extent of historic interest only. Therefore, I came to the conclusion that it would be best not to attempt to include such works in either of the two categories indicated, but to list them separately. It seemed to me that proper weight would thus be accorded to pioneers such as Taylor, Gantt, Emerson and Gilbreth and their followers.

Another difficulty derived from the manner in which works by authors writing in languages other than English should be treated. Many important contributions to the literature of management have originated in foreign sources. Unfortunately, however, they have not, save in a few rare instances, been translated into English and are consequently inaccessible to students whose linguistic abilities are confined to that language. It appealed to me as advisable, therefore, to restrict the list to works in English, especially as under present conditions it is practically impossible to obtain publications from Continental Europe.

Reference should also be made to publications by management associations and societies. Practically all of these are in the form of journals, proceedings and monographs. They represent in the aggregate a rich collection of material of great value to students of management. They do not, however—so it seems to me at least—belong in a restricted list of books. This observation applies also to the several handbooks in the fields of administration, management, production, sales, etc., that are available to American readers.

With respect to the books finally entering into the composition of my list, which originally consisted of forty-four references (including twelve on scientific management) and for present purposes has been expanded to a round fifty in number, the following comments will prove helpful in judging the validity of the selections made:

1. The general pattern is definitely restricted to works of broadly inclusive character dealing with fundamentals and not bearing heavily on techniques;

2. The attempt has been made to consider special phases of management only in a limited fashion. This will account for the paucity, or even absence, of reference to works on psychology, distribution, finance, accounting, advertising, etc.;

3. Where several works on the same subject appear, they have been chosen because of the diverse treatment employed by the respective authors;

4. Most of the authors included in the list are authorities on the subjects they write about. I have

not hesitated, however, to feature the writings of some men who are known more for their ability to bring together existing knowledge in a logical, cohesive and interpretive manner leading to correct synthesis, than for what they may have contributed to the advancement of management by original discoveries based upon research and practical experience;

5. Because of the great changes that have occurred in the past three decades, I have endeavored to list mainly such books as are of recent origin. Nevertheless, I could not overlook those of the older books which are in effect timeless, because their authors were endowed with degrees of knowledge and experience sufficiently great to enable them to produce works of permanent value.

I should like, finally, to say that in making the selections featured in the list I have tried to reduce to a minimum any bias of which I may be possessed. Perhaps the most acceptable assurance of the value of the list lies in the fact that whenever I consult any of the works it contains, I invariably add to my knowledge of management. It is my earnest hope that publication of the list may assist in opening up to students of management opportunities for equipping themselves, through study of the works in question, to deal more effectively with the complex problems of our troubled times.

1

Readings in Scientific Management

Because of their historic importance, works on scientific management are accorded priority of reference and comment. The fourteen works presented below constitute a limited selection from among the greater number of publications available. In the preparation of the list, the attempt has been made to accomplish three objectives: to acquaint the present-day reader with the substance and evolution of scientific management, to give proper emphasis to certain specific works relating to this field, and to feature definitive appraisals of the lives and activities of the most distinguished of the leaders, i.e., Taylor and Gantt.

The *Dartmouth Scientific Management Conference*,[1] the first of its kind to be held, served to bring into focus the major aspects of the new doctrine as described by its chief exponents, many of whom took active parts in the proceedings. The conference owed its inception to the initiative of Dr. H. S. Person (then a member of the Tuck School faculty), a fact for which this foremost interpreter of Taylorian principles has never received adequate recognition.

Drury's *Scientific Management: A History and Criticism*,[2] prepared at a time still too soon after the event to permit of permanently valuable interpretation, nevertheless offers to students an opportunity for orientation, as well as somewhat intimate portraits of the leading figures. This work still has value for those who wish to become familiar with the origins and early development of scientific management.

Hunt's *Scientific Management since Taylor*[3] presents, on the other hand, an evaluation which is authoritative, first of all, because it stems from men who were progenitors, catalysts or practitioners of various phases of the movement and, secondly, because it was sufficiently removed in point of time from its inception to warrant the conclusion that the perspectives employed are sound. Moreover, the work has the benefit of the labors of a sympathetic, understanding and capable editor.

Person's *Scientific Management in American Industry*[4] represents the most ambitious, and also the most successful, attempt at synthesis undertaken. It is a comprehensive treatise, based upon contributions by some twenty-six authors, and the single, most authoritative source of information and interpretation with respect to scientific management at the disposal of the student. It is doubtful whether this work would have been possible without the expert guidance provided by its editor, Dr. H. S. Person, whose long years of study of the underlying philosophy are reflected admirably in the contributions of which he is the author.

The works listed as Nos. 5 to 11, inclusive, are hardly in need of specific reference. They are among the classics associated with scientific management; the names of their authors are familiar to every student of the field. Taken as a group, and despite the dissimilarity of their individual approaches to the broad problems they sought to solve, these pioneers

[1,2,3,4] *Selected List of Books on Scientific Management*, page 96 of this article.

laid the foundations for a new school of thought, a new philosophy, which has left its impress upon later generations.

Copley's biography of Taylor[12] and Alford's of Gantt[13] constitute adequate and able appraisals of these great leaders. It is to be hoped that before too long a time elapses similar studies of other leaders in the field of scientific management will become available. Clark's *The Gantt Chart*,[14] written by a close associate of Gantt, describes a technique originated by the latter for relating work planned and work performed to each other and to the time element. This little book has been translated into many languages and is of permanent value.

SELECTED LIST OF BOOKS ON SCIENTIFIC MANAGEMENT

1. *Scientific Management.* Addresses and Discussions at the Conference on Scientific Management held October 12–13–14, 1911.
   Amos Tuck School of Administration and Finance, Dartmouth College, Hanover, New Hampshire, 1912. Pp. 388.
2. *Scientific Management: A History and Criticism.* By Horace Bookwalter Drury.
   Columbia University, New York, 1915. Pp. 222.
3. *Scientific Management since Taylor.* A Collection of Authoritative Papers. Edited by Edward Eyre Hunt.
   McGraw-Hill Book Company, New York and London, 1924. Pp. xv + 263.
4. *Scientific Management in American Industry.* By the Taylor Society, H. S. Person, Editor.
   Harper & Brothers, New York and London, 1929. Pp. xix + 479.
5. *The Principles of Scientific Management.* By Frederick Winslow Taylor.
   Harper & Brothers, New York and London, (1911) 1923. Pp. 144.
6. *Shop Management.* By Frederick Winslow Taylor.
   Harper & Brothers, New York and London, (1903) 1911. Pp. 207.
7. *Industrial Leadership.* By Henry Laurence Gantt.
   Yale University Press, New Haven, Connecticut, 1916. Pp. xii + 128.
8. *Work, Wages and Profits.* By Henry Laurence Gantt.
   Second Edition. The Engineering Magazine Company, New York, (1910) 1919. Pp. 312.
9. *Twelve Principles of Efficiency.* By Harrington Emerson.
   Fifth Edition, Engineering Magazine Company, New York, (1911) 1919. Pp. xviii + 423.
10. *Primer of Scientific Management.* By Frank B. Gilbreth.
    Second Edition, D. Van Nostrand Company, New York, (1911) 1914. Pp. viii + 108.
11. *Applied Motion Study.* By Frank B. and L. M. Gilbreth.
    Sturgis & Walton Company, New York, 1917. Pp. xviii + 220.
12. *Frederick W. Taylor, Father of Scientific Management.* By Frank Barkley Copley.
    Taylor Society, New York, 1923. Vol. I—Pp. xxviii + 467; Vol. II—Pp. vii + 472.
13. *Henry Laurence Gantt, Leader in Industry.* By Leon P. Alford.
    American Society of Mechanical Engineers, New York, 1934. Pp. xiii + 315.
14. *The Gantt Chart.* By Wallace Clark.
    The Ronald Press Company, New York, 1922. Pp. xii + 157.

NOTE: Figures shown in parentheses denote year of first publication.

2

Twelve Indispensable Works

The second part of the list deals with what I regard as indispensable works in the field of management. I submit it with suitable comments appended to each work chosen and with the candid admission that its preparation has constituted a labor of love, as well as an expression of my lasting intellectual obligation to the several authors represented.

1. *The Philosophy of Management.* By Oliver Sheldon. Sir Isaac Pitman & Sons, Ltd., New York and London, 1923. Pp. xvi + 296.

Since its publication over twenty years ago, this work has become a recognized classic. Written from a broad perspective, it stresses the importance of scientific and ethical principles, gives an excellent exposition of the social and industrial background, and deals in an authoritative manner with fundamentals of management. The author, an Oxford graduate and British industrialist, naturally reflects British viewpoints and practices; he writes with considerable charm of expression, and his exposition is at all times readily understandable. His treatment throughout is scholarly and intellectually stimulating.

2. *Industrial and General Administration.* By Henri Fayol. English Translation—Sir Isaac Pitman & Sons, Ltd., New York and London, 1930. Pp. 84. French Publisher—Dunod, Paris, 1920. Pp. 174.

A famous work by a great French engineer who died in 1925. His masterly analysis of the essential functions of a business enterprise, his selection among them of administration for

special treatment leading to a statement of five underlying principles, and his advocacy of the latter in the form of the Administrative Doctrine, combined to lay the foundation for a new school of thought known as "Fayolism." With characteristic logic, Fayol expounded his theories over a long period of years, did not hesitate to defend them vigorously when they appeared to clash with the principles advocated by Taylor, and had the satisfaction before his death at an advanced age to see his contributions to the science of administration widely recognized and accepted.

3. *Top-Management Organization and Control.* By Paul E. Holden, Lounsbury S. Fish and Hubert L. Smith. Stanford University Press, Stanford University, California, 1941. Pp. xvii + 239. London: Humphrey Milford—Oxford University Press.

This work deals with a field which has hitherto been little explored. Instead of being the product of unverifiable personal experience, however, it belongs in the category of a scientific contribution to the sum total of knowledge in the field indicated. On the strength of their research study of the management policies and practices of 31 leading American industrial corporations, the authors have performed the signally valuable service of bringing together, in admirably organized form, a great amount of factual and interpretive material bearing upon some of the most important and complex management problems with which large-scale industrial organization is confronted.

4. *The Principles of Organization.* By James D. Mooney and Alan C. Reiley. Harper & Brothers, New York and London, 1939. Pp. x + 223.

This is a scholarly treatment of the subject dominated to a large extent by the historic viewpoint. Recognizing the universality of organization, the authors devote the initial chapters of their work to an exposition of the coordinative, scalar and functional principles of organization and the staff phase of functionalism. The body of their treatise deals on a broad scale with principles of organization underlying such institutions as state, church, army and industry, and considerable space is devoted to a discussion of their evolution through various great epochs into which human progress may be divided. The final seven chapters concern themselves altogether with modern industrial organization and the present challenge to leadership. This is not a work which may be readily mastered. Its careful study will, however, supply the reader with a sound framework of principles which will serve excellently the purpose of orientation.

5. *Lectures on Organization.* By Russell Robb. Delivered in the course on industrial organization at the Graduate School of Business Administration of Harvard University. Privately printed, 1910; pp. 68. Inquiries may be addressed to the Hopf Institute of Management, Ossining, New York.

This little work, consisting of three lectures, is and has long been an American classic. The author, a distinguished engineer who died in 1927, brought admirably to expression in these lectures a varied experience distilled into a philosophy which, taken as a whole, constitutes perhaps the single most authoritative and appealing exposition stemming from an American to be found in the literature of organization. In the order given, the lectures deal with organization as affected by purpose and conditions, the limits of organization, and the organization of administration. Their study and mastery are essential to the attainment of a comprehensive understanding of the force of organization.

6. *The Design of Manufacturing Enterprises.* By Walter Rautenstrauch. Pitman Publishing Corporation, New York and Chicago, 1941. Pp. x + 298.

For the successful conduct of any industrial enterprise, whether large or small, it is essential that an effective economic design be provided. This is the thesis advanced by the author, a noted authority in the field of industrial engineering and head of the Department of Industrial Engineering of Columbia University. Dr. Rautenstrauch devotes his work to a concise and illuminating exposition of all the major factors that must be considered in connection with attainment of the objective stated, dealing first with business as a whole and then considering a number of selected problems. Principles and methods supported by the author's wide and varied experience are fully presented and discussed, with a clarity of statement that makes for ready understanding and assimilation by the student.

7. *Industrial Organization and Management.* By Ralph C. Davis. Harper & Brothers, New York and London, 1940. Pp. xxii + 636.

Among the general works on the subject, this book takes high rank. It is an exhaustive examination of problems of industrial organization and management introduced by a half-dozen chapters which comprise a thorough and singularly enlightening statement and discussion of basic material dealing with philosophy and principles. The author is well grounded in the literature of his field, facile in the interpretation of theory and practice, and reveals mastery of his subject by the competent and discriminating manner in which he has organized the presentation of his material. The book is of permanent value to both the practitioner and the student.

8. *Industrial Management.* By Richard H. Lansburgh and William R. Spriegel. Third Edition, John Wiley & Sons, Inc., New York, 1940. Pp. xi + 666.

This is the third edition of a well known work by the late Richard H. Lansburgh, which was published over twenty years

ago and in the intervening time has become a standard text on the subject. The current revision of the work was prepared by the authors with the principal aim in view of presenting a sound philosophy of management. Policies and principles are considered in the light of their successful application, and throughout the work a conscious effort has been made to induce development of a scientific state of mind toward business problems. The material presented is excellently organized and balanced as to relative importance; a valuable bibliography, arranged by subject, has been appended.

9. *Budgetary Control*. By James O. McKinsey. Ronald Press Company, New York, 1922. Pp. viii + 474.

Although this work was published in 1922, and a great deal has been written on the subject of budgeting in the past twenty years, Prof. McKinsey's text has lost none of its value with the passage of time; it must still be regarded as an outstanding contribution. The author, whose untimely death in 1937 terminated a brilliant career as teacher, professional consultant and business executive, was noted for the penetrating character of his thinking and the lasting quality of his contributions to the solution of business problems. He was particularly gifted in the art of exposition, a fact of which there is abundant evidence in his writings.

10. *Personnel Management*. By Walter Dill Scott, Robert C. Clothier, Stanley B. Mathewson and William R. Spriegel. Third Edition, McGraw-Hill Book Company, New York and London, 1941. Pp. xii + 589.

Now in its third edition, this work is a text of recognized value in the field it aims to cover. Two distinguished pioneers in the scientific exploration of personnel problems, Drs. W. D. Scott and R. C. Clothier, who later became the chief administrators of well known universities, were responsible for preparation of the original text, published in 1923. The second edition was brought out by Stanley B. Mathewson, and the current one has had the benefit of the collaboration of Dr. Scott and Dr. Spriegel. In connection with the latest revision, surveys of the practices of some 231 companies were undertaken and the results employed in guiding the conclusions of the authors. Students will find this work rich in background material, stimulating in the presentation of principles and practices, and pervaded by a thoroughly constructive attitude regarding the vitally important problems discussed.

11. *Functions of the Executive*. By Chester I. Barnard. Harvard University Press, Cambridge, Massachusetts, 1938. Pp. xvi + 334.

To study and master this work constitutes an intellectual challenge. Originally prepared for a series of lectures at Lowell Institute in Boston, the material was later revised and expanded to the definitive form in which it was finally published. The author, a leading public utility executive with many years of experience in observing and dealing with problems of organization, has brought to bear upon his subject unusual powers of synthesis and the ability to harmonize effectively its theoretical and practical aspects. The breadth of perspective possessed by the author has enabled him to bring within the range of consideration a formidable array of fields of knowledge which serve to fortify the orientation he provides.

12. *The Art of Leadership*. By Ordway Tead. McGraw-Hill Book Company, New York and London, 1935. Pp. xi + 308.

Addressing itself to examination of a "relatively unexplored art," this work, by a distinguished educator, author and interpreter of management, is of quite as much significance and value today as it was when published ten years ago. Leadership continues to be perhaps our single, most urgent problem in industry no less than in other walks of life. Here we have a contribution to an understanding of its meaning and methods written with a perspective and with convictions derived from deep study and broad experience. No reader can lay down this book without a feeling that he has become enriched by absorbing the products of its incisive and wise analysis of foremost imponderables in management.

3

Twenty-Four Recommended Works

The third part of the list embraces a total of twenty-four works, each of which is recommended to the reader as an able and illuminating discussion of the field it is designed to cover. In a few instances, these works are of so impressive a quality that it proved a difficult matter to draw lines of demarcation between them and the twelve works characterized as indispensable. Taken as a whole, the twenty-four works provide a thoroughly adequate foundation for the acquisition of a comprehensive knowledge of the substance of management.

1. *Science and Practice of Management*. By A. Hamilton Church. The Engineering Magazine Company, New York, 1914. Pp. xviii + 535.

Because the author recognized that the "application of disconnected ideas, however valuable in their special place these

may be, does not make a science," he sought to substitute for the disconnected ideas initially represented by the elements of scientific management, an approach to the reduction of the "regulative principles of management to their simplest terms." Thus he aimed "to provide a basic classification for administrative activity on which a detailed structure could subsequently be built up." The resulting study is in every sense of the word a pioneering effort of fundamental importance and value. Unfortunately, Church's contribution, due perhaps to lack of aggressive publicity, did not succeed in attracting lasting attention; before many years had elapsed, references to it began to pass from the pages of newer books. It is a privilege to rescue this work from the neglect it has suffered and to urge students to become familiar with the remarkable synthesis of management it presents.

2. *Higher Control in Management.* By T. G. Rose. Fourth Edition, Sir Isaac Pitman & Sons, Ltd., London, 1944. Pp. xvi + 279.

Since the time of publication of the first edition, in 1934, this work by an able English consultant in the field of management has won constantly increasing acceptance at the hands of the British public. It is written wholly from the viewpoint of supplying the type of information needed by a managing director to exercise effective control over the progress of the enterprise for whose success he is responsible. While the material used for illustrative purposes is drawn from British practice, American readers will obtain from it a clear insight into techniques which could with profit be applied to fostering more effective control of our own enterprises.

3. *The Technique of Executive Control.* By Erwin Haskell Schell. Second Edition, McGraw-Hill Book Company, New York and London, 1934. Pp. x + 133.

When this little work appeared, in 1924, a reviewer of the New York Times expressed the opinion that the author had done a good and wise thing by publishing it. This opinion has stood the test of time, for there is as much to be gained from an appreciation of Prof. Schell's philosophy today as there was in the less informed but simpler period of twenty years ago. The author, one of our most distinguished educators in the field of business administration, brings to expression in his treatise sound, tolerant and constructive viewpoints whose appeal to executives of all types is undeniable. His contribution to an understanding of what must always remain a difficult art is of permanent value.

4. *Dynamic Administration.* The Collected Papers of Mary Parker Follett. Edited by Henry C. Metcalf and L. Urwick. Management Publications Trust, Ltd., New York and London, 1941. Pp. 320.

Described by the editors in their introduction to this work as a political and business philosopher of the first rank, Mary Parker Follett was a singularly gifted woman who devoted an exceedingly active life, which came to an end in 1933, to the study of broad political, social and industrial problems, with special emphasis on organization and administration. This collection of her papers, edited by two men who, apart from possessing unique qualifications for the task by reason of their respective backgrounds, had the inestimable advantage of personal association with her (the one in America and the other in England), brings to expression a profound philosophy whose teachings should become common knowledge among business administrators in all fields of enterprise.

5. *The Elements of Administration.* By L. Urwick. Harper & Brothers, New York, 1944. Pp. 132.

Administration is one of the most frequently misunderstood and, therefore, misapplied terms in the vocabulary of the business executive. Because problems of administration have steadily become more and more complicated, there has long existed a need for supplementing the meager literature of the subject with an authoritative exposition of its fundamentals. This task was undertaken by Col. Urwick, a noted English writer on administration and cognate subjects; the outcome represents a contribution of distinct value which is rapidly winning the approval of informed students of the field. Familiarity with the contents of this volume is bound to stimulate thinking along many collateral lines not suggested by its title.

6. *Administrative Procedure.* By Comstock Glaser. American Council on Public Affairs, Washington, D. C., 1941. Pp. 207.

This work, which deals altogether with the business of government, contains on its title page the statement that it is a practical handbook for the administrative analyst. Dr. Glaser is too modest in thus describing the character of his treatise, for in it he not alone probes deeply into the "processes of administration and the anatomy of administrative organizations," but also enunciates a philosophy concerning administration in general which is one of its most stimulating and valuable features. The author is thoroughly familiar with the literature of the field, has been at great pains carefully to define the more important terms used in the text, and has succeeded in producing a work which is thoroughly readable and interesting. Students of administration, whether connected with government or industry, will find knowledge of this treatise essential to a better understanding of administration.

7. *Administrative Proficiency in Business.* By Erwin Haskell Schell. McGraw-Hill Book Company, New York and London, 1936. Pp. x + 292.

It is the judgment of the author that in an industrial nation there is no more significant group of men than the business administrators. Prof. Schell has spent many years in preparing men for the ultimate acceptance of high responsibilities in the field of administration. From this long and varied experience he has distilled a certain philosophy, cultivated a way of reasoning, an outlook upon life, which are reflected in what he has written. The aim of this book is to analyze and delineate "those attainable qualities of personality and character that underlie proficiency." It is addressed not alone to men who are already versed in the technique of executive management, but also to "those younger business men of promise, who have early determined to prepare themselves, in point of education,

training, and experience for future industrial positions of large responsibility." To both groups the author brings a message which cannot fail to impress by its authoritative character, its warmth of utterance, and the challenge to action by which it is animated. The work is admirably conceived and endowed with great potentialities for helpfulness.

8. *Fundamentals of Business Organization*. By Webster Robinson. McGraw-Hill Book Company, New York and London, 1925. Pp. ix + 230.

This work constitutes one of the earlier attempts to formulate a synthesis in the field of organization. In it Dr. Robinson advanced the view (not at all generally accepted twenty years ago) that "regardless of the size or character of a business there are certain basic factors and relationships which are essential to its effective organization." The work is devoted to presentation and discussion of eight fundamentals of organization; these were so clearly perceived by the author that they remain valid despite the enormous changes in economic, social and political conditions which have occurred in the intervening time. In the light of accumulated knowledge and experience, a restatement of fundamentals undertaken now would doubtless result in a shift in emphasis and the inclusion of additional factors. The book is relatively small in compass and very well written; it should prove extremely helpful for purposes of general orientation.

9. *Principles of Organization*. By Henry P. Dutton. McGraw-Hill Book Company, New York and London, 1931. Pp. x + 315.

In every respect a modern treatment of the subject, this work is distinguished by a scientific approach to the consideration of organization which embraces factors not usually brought within the range of discussion by other writers. In the first five chapters the author presents a clear and convincing statement of fundamental principles entering into the general problem of organization. The next four chapters relate to the more concrete ground occupied by standardization, planning, division of duties, and the line organization. The following four chapters cover some of the psychological aspects of organization as expressed in the individual and his purposes, the individual and his group, group decision and group thinking. Of the final four chapters, three are devoted to consideration of the practical problems involved in selection and training, incentive, and discipline, and the last to the organization and its outside relations. The author is thoroughly steeped in his subject, his references to source material are discriminating and reflect a wide range of selection, and his style is such as to create sustained interest.

10. *Principles of Industrial Organization*. By Dexter S. Kimball and Dexter S. Kimball, Jr. Fifth Edition, revised, McGraw-Hill Book Company, New York and London, 1939. Pp. xix + 478.

Originally published in 1913, this book has gone through five editions in the past thirty years and is still in demand as a standard work in the field it covers. In the preparation of the fourth and fifth editions, Dr. Kimball, Dean Emeritus of the College of Engineering, Cornell University, had the collaboration of his son, Dexter S. Kimball, Jr., also a teacher and practitioner of industrial engineering. The product of their labors extends beyond a discussion of principles of industrial organization, and includes consideration of the evolution of industry, the economic and social effects of inventions, the growth of industrial enterprises and of other industrial tendencies. The body of the work contains a wealth of material on major phases of organization; among the concluding chapters, those on cost finding, compensation of labor, measures of management and industrial relations should be singled out for special emphasis of their quality and value. Students will find this work a mine of information, presented in authoritative and readable manner.

11. *Business Organization and Management*. By Elmore Petersen and E. Grosvenor Plowman. Richard D. Irwin, Inc., Chicago, 1941. Pp. xv + 691.

From the fact that this work runs to approximately six hundred pages, with almost another hundred devoted to presentation of supplemental material for teaching purposes, an excellent bibliography and a very well constructed index, one may conclude that the authors have labored long and earnestly in its preparation. They have labored to good purpose, for although their treatment is not exactly inspired—indeed, in some respects is rather pedestrian—the product constitutes a soundly conceived, well integrated and exhaustive discussion of basic theory and principles. This work is especially designed for use as a college textbook, but the seasoned practitioner will discover in it much that will prove helpful in clarifying his perceptions of the field covered. The numerous diagrams, charts and other illustrations, most of which stem from the authors, are one of its praiseworthy features.

12. *Organization Engineering*. By Henry Dennison. McGraw-Hill Book Company, New York and London, 1931. Pp. viii + 204.

Between the covers of this little book, the author has compressed into an admirable statement a distillation of much that he has learned about organization in a lifetime of activity as a business executive and a leader devoted to the cause of science and the humanities. Mr. Dennison prefaces his text with the statement that it is intended to be suggestive rather than comprehensive and that "a special effort is made to offer an ordering of the whole subject matter which will help a further systematic development of the science and art of organization engineering, and increase the amount of research devoted to it." The significance of the work derives from the authority with which Mr. Dennison speaks; its value is enhanced by his ripe philosophy and the simplicity and directness of statement so effectively employed.

13. *Principles of Industrial Management for Engineers*. By L. P. Alford. The Ronald Press Company, New York, 1940. Pp. xxii + 531.

Completed by the author within less than two years of his untimely death, in 1942, this work may be characterized as a synthesis of the results of his long continued labors and re-

searches in the field of management. By reason of his intimate connection with all stages of evolution in this field from the inception of the scientific management movement, as well as of his contributions as a scientist and interpreter of principles, Dr. Alford was in a unique position to prepare a comprehensive text that would present in definitive form the principles and methods of industrial administration and management. This he accomplished with great success; moreover, guided by his engineering training and habits of thought, he made adequate use of mathematical analysis in furnishing quantitative answers to specific management problems. While this work was written primarily as a college text, it qualifies also as a valuable reference book for operating executives.

14. *The Science of Production Organization*. By E. H. Anderson and G. T. Schwenning. John Wiley & Sons, Inc., New York, 1938. Pp. x + 282.

Two scholars engaged in the teaching of business administration at the University of North Carolina combined forces to produce this work. They recognized the need for publication of a book that would appraise and integrate the thoughts of numerous writers on the various aspects of organization. From perhaps as wide a range of examination of the pertinent literature as is disclosed in the writings of any other author in the field, Drs. Anderson and Schwenning have prepared a text which constitutes a scientific approach to the study of organization. The authors take the position that there is a science of organization and that it is the product of evolution rather than of a single theory. One does not have to agree with all of their conclusions to acknowledge that they have made a scholarly contribution to a better understanding of problems that are among the greatest confronting industry and society today. This is a text of finished form and content which, if only for the wealth of definitions it contains, should be a welcome addition to any management library.

15. *Personnel Administration: Its Principles and Practice*. By Ordway Tead and Henry C. Metcalf. Third Edition, McGraw-Hill Book Company, New York and London, 1933. Pp. xiv + 519.

Published originally in 1920, this work is among the earliest dealing comprehensively with the field of human relations in industry. During the twenty-five years it has been available to the public, sweeping changes in economic and social conditions have occurred; these have naturally created the need for revising earlier concepts of the scope and objectives of personnel administration. Comparison of the first and third editions of this work demonstrates, however, that while the text of the latter has been amplified in some respects and shortened in others, the pattern of the original was constructed in so fundamental and penetrating a manner that it has required little modification. The authors, one of whom (Dr. Metcalf) died three years ago, have paralleled in their own development the most significant stages of evolution of the personnel movement; in fact, as pioneers in the field, they have contributed in no small measure to the increasing recognition of sound principles and enlightened practices.

16. *Personnel Management and Industrial Relations*. By Dale Yoder. Prentice-Hall, Inc., New York, 1942. Pp. xxii + 848.

Based on an earlier work under a slightly different title, this volume, of encyclopaedic character and proportions, presents a treatment of the subject complete enough to satisfy even the most exacting requirements. In its 848 pages (including the index), the author has carefully considered not only the various phases of personnel administration from selection to superannuation, but also the more dynamic aspects of industrial relations as they have developed during the past decade and a half. Dr. Yoder's background as an economist and his varied experience in important capacities in public service have equipped him to apply a broad perspective to the consideration of personnel problems and to give due weight to the essential function of scientific research in their solution. The extensive references to statistical methods and materials provide a rather unusual feature in a book of this character, justified no doubt by the increasing need for science to prevail in a field where uninformed and prejudiced opinion has often frustrated ascertainment of the truth.

17. *Personnel Relations*. By J. E. Walters. The Ronald Press Company, New York, 1945. Pp. xx + 547.

Written largely out of the broad and varied experience of its author, this work considers the problem of personnel relations as it may be interpreted in a setting of democracy. In contrast with approaches made by other writers, the author initiates his discussion by naming workers, management and the government as the principal determinants of personnel relations; in that order he proceeds to develop his subject. The reader comes to grips at once with the dynamics of labor unions; he is then introduced to organized concepts of personnel relations as they have gradually been accepted by management. Part Three, comprising twelve chapters, affords a clear and comprehensive view of the host of techniques that must be utilized in order to do justice to specific practical problems. The five chapters of Part Four are concerned with the impacts of governmental co-operation and regulation, and the last part presents the case for greater co-operation among the three principal determinants, with a summary of the ideals whose attainment should be sought. This is the latest work on the subject to appear; it is fundamental in approach, objective and informed in treatment, and stands as a scholarly contribution to the literature.

18. *Management and the Worker*. By F. J. Roethlisberger and W. J. Dickson. Harvard University Press, Cambridge, Massachusetts, 1939. Pp. xxiv + 615.

This work is in the nature of a descriptive and analytical report on perhaps the most extended and sustained scientific investigation of human beings at work of which there is a record. The famous "Hawthorne Experiments," a series of inquiries into the human effect of work and working conditions, were initiated at the Hawthorne Works of the Western Electric Company, Chicago, in 1927 and continued until 1932. For a period of six or seven years thereafter scientists connected

with various phases of the investigation devoted themselves to the preparation and publication of findings, conclusions and other data derived from the investigation. F. J. Roethlisberger, Associate Professor of Industrial Research of the Harvard Graduate School of Business Administration, and W. J. Dickson, Chief of Employee Relations Research Department of the Western Electric Company, were continuously associated with the project; as authors of this volume they have rendered a signal service to students of management everywhere. It is much to be regretted that so few practitioners are familiar with its contents.

19. *Executive Salaries and Bonus Plans*. By John Calhoun Baker. McGraw-Hill Book Company, New York and London, 1938. Pp. xxiv + 274.

Among the most difficult problems confronting business today are those relating to the compensation of executives. Comparatively little has been written on this subject, due probably to the fact that prior to a decade or so ago, facts concerning prevailing practices were not available, except in fugitive form. Save for the study by F. W. Taussig and W. S. Barker, published in the Quarterly Journal of Economics, November, 1925, this work is the first to deal analytically with the problem on the basis of extensive statistical data. The author, at the time of publication of his study Associate Director of Research of the Graduate School of Business Administration of Harvard University, obtained his source material from the Federal Trade Commission and the Securities and Exchange Commission. Although he makes no pretensions to having developed a theory or philosophy about executive payments, he has made available the results of research which, despite rapidly changing conditions and the lapse of time, are of current interest and should act as stimuli and guides to further investigations.

20. *Salary Determination*. By John W. Riegel. Bureau of Industrial Relations, University of Michigan, Ann Arbor, Michigan, 1940. Pp. 278.

Equitable salary determination is one of the most effective devices or tools which may be employed by management to motivate the attitudes of employees and lay a sound foundation for increased accomplishment. Dr. Riegel's study is based upon a survey made by him of common policies and selected practices in forty American corporations engaged in a variety of activities, including manufacturing, public utilities, retailing, banking, insurance, etc. To delimit the area of his investigation, he confined himself to the second and third of the following four groups: (1) wage earners, (2) routine workers on salary, (3) managers and technicians paid less than $10,000. per year, and (4) top executives. His primary purpose was to organize and clarify major considerations involved in salary determination. He has brought together a large amount of useful information on various aspects of salary administration and has presented it in logical sequence, with conciseness of statement. Familiarity with the contents of this book should prove helpful to all executives struggling with the intricacies of the problems discussed.

21. *Motion and Time Study*. By Ralph M. Barnes. Second Edition, John Wiley & Sons, Inc., New York, 1940. Pp. xi + 390.

Motion and time analyses are among the best known and most spectacular techniques created and utilized by the pioneers in scientific management. Taylor originated time study in order to provide a basis for rate setting; the Gilbreths developed motion study in furtherance of their search for the principles and techniques underlying the "one best way" of performing a task. Dr. Barnes, a member of the faculty of the College of Engineering, University of Iowa, has long been noted for his deep scientific interest in the field of motion and time study and for the results which have attended the researches in which he and his associates are constantly engaged. The first edition of this work was published in 1937; the second edition, with certain features enlarged upon and more illustrative material included, appeared three years later. It has found wide approval as a vade-mecum for students and practitioners.

22. *Wage Incentive Methods*. By Charles Walter Lytle. Revised Edition, The Ronald Press Company, New York, 1942. Pp. xix + 462.

Prof. Lytle's work, originally published in 1929, appeared thirteen years later in a revised and enlarged edition. As the author himself inferred on this occasion, the lapse of time occurring between the first and second editions had permitted the evolution of wage incentives to proceed to a point at which "the principles and techniques which can now be presented amount virtually to a science." This work is exhaustive in scope, authoritative in manner of treatment, and stimulating throughout to the reader who desires to inform himself concerning theory and practice in an important but highly technical field of management. As a thorough student and teacher, Prof. Lytle has not failed to provide his work with a great number of graphic illustrations and tables of immense practical aid to the reader. They are splendidly reproduced and constitute a tribute to the craftsmanship of the printer.

23. *Middle Management*. By Mary Cushing Howard Niles. Harper & Brothers, New York and London, 1941. Pp. xi + 270.

Middle management is the term—and it is a good one—that the author has chosen to apply to the occupants of those levels of the organizational structure located immediately below the zone of top management. The author describes them as "junior administrators" and classifies them as department heads, with responsibility for indirect supervision of a hundred or more, in many cases several hundred, persons. The book is devoted to consideration of the problems of the junior administrator; on the strength of diversified experience as a consultant, primarily to insurance companies, Mrs. Niles includes within its compass the products of keen analysis of environmental factors and human relationships, pervaded by a thorough understanding of the broader concerns of management. Written with simplicity, earnestness and a commendable quality of objectivity, this work should prove of practical value to junior administrators ambitious to make the most of their potentials and opportunities.

24. *Textbook of Office Management.* By William Henry Leffingwell and Edwin Marshall Robinson. McGraw-Hill Book Company, New York and London, 1943. Pp. xiii + 469.

Despite the fact that the literature includes a number of volumes relating to the subject of office management, this work by the late William Henry Leffingwell, which originally appeared in 1932, must still be ranked as the leading text of its kind. The revision undertaken by Prof. Robinson has had the effect of giving greater coherence to the structure of the book and of strengthening it in other respects for teaching purposes. In all its essential aspects, including the statement of principles which Leffingwell so ably presented and expounded, the book has remained substantially unaltered. It constitutes the product of long experience by a distinguished authority and should be read and digested by all office managers who wish to think and act in terms of fundamentals.

In bringing this omnibus review to a close, it may not be amiss to stress the fact that the guiding principle adhered to in doing justice to the problem of selection was to favor, wherever possible, works that would contribute to enlargement of the reader's intellectual horizon. While I fully recognize the important role played by specialization in the attainment of operating results, I have encountered its atrophying effects too often in management to rest content with any other course.

In management we need more educated men and fewer specialists. We need far more the capacity to think in terms of fundamentals than the ability to be facile in the use of instruments of precision. We need more philosophers with a spirit of inquiry dominated by broad perspective and fewer technicians whose customary approach only too often narrows down to a point. Above all, we need men whose intellectual equipment will enable them to accept and to act upon the implications of the optimum.

If as the result of reading the works included in the foregoing list broader perspectives and more lasting intellectual stimuli are provided to only a handful of students or practitioners of management, the labor involved in its preparation will not have been in vain.

Whoever calls the tune must pay the piper. If businessmen are to lead the world, as in this age they should, they will have to assume a burden of political responsibility; their immense social importance will demand new social virtues. They will have to be the educated men of the new world, farsighted and informed, who can bring their influence to bear deliberately and consistently toward the organization and administration of a global estate. They will have to take an interest in legal developments, in standards of living, and in public education for the new world citizenship which their economic order will bestow on all people. They must be the patrons of science and art and letters, as emperors and prelates were in the past; for their scientific culture must be kept alive from within, and the human spirit must keep pace with the material advance.

In short, the industrial age will have to produce its great men, as military and religious and imperial ages have done. The capitalist, the labor leader, the distributor, will have to bear the burden of a civilization made to their measure. Above all, they will have to avow standards of honor and justice, the claims of communities, the duties of governments and of the men who control them, the rights of individuals; they must recognize ideals, and affirm or deny them squarely.

SUZANNE LANGER
Fortune, March, 1945.

Annual Wage Plans and Some of Their Practical Problems*

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THE problem of social security has never been merely to ease the plight of those who are actually *experiencing* unemployment but to remove from a vaster number of individuals the terror of *becoming unemployed*. For even when people are busily at work, any misinterpretation, any threatening change, any hearsay or rumor starts them worrying. Unemployment becomes less of a calamity if the loss of income is not so immediate. To have some months' notice is to give one fortitude; to have the certainty of a year's employment or wages is to relieve one's mind of imminent danger and to permit planned adjustment to the future.

There is no need to summarize here the advantages of annual wage plans established under appropriate circumstances. There is no argument about that, and some of the best reasons in favor of it have come from employers. Good management recognizes what anxiety concerning loss of one's job does to workers and how it conditions their attitudes towards technology and production. Where employes have enjoyed genuine stability of employment and income, the beneficial effects upon them and upon output and the additional stimulus to management itself have been enthusiastically reported.

But can we achieve for all mankind the goal of an annual wage guarantee—modest enough in comparison with ideal security—by fiat of government or labor, or shall we patiently though actively lay the basis for a workable advance? That alone is the present issue. What has made the CIO unions' demand for an annual wage a red rag to many industrialists, rather than, as it could have been, a beacon for postwar progress? It is this problem which is here initially considered. For what overwhelmed employers and others are such elements as the following:

(1) The demand came to the fore suddenly in industries conspicuously unstable, and this irregularity has been made a special argument for full annual wages, rather than a reason for a moderate experiment.

(2) The demand has been made by unions on an industry-wide basis and not from particular firms whose condition was favorable. Thus it seems to threaten impossible burdens and ruin to many concerns.

(3) The proposal was not to protect a suitable proportion of the employes covered by an industry but everyone on its pay roll at a given date, with no safety margin.

(4) The demand was not for a specified minimum working year but for 52 weeks.

(5) The demand for this full period was not for some proportion of the weekly wage but for a full 40-hour pay.

(6) The demand was not accompanied by a suggestion of willingness to balance the extra costs and risks of an annual wage guarantee to employers by wage adjustments but was associated with requests for increases which would retain the high war overtime take-home within the regular working week.

(7) The proposal loomed as a possible demand upon the government for some action, making employers fearful that one more drastic piece of labor legislation was to be introduced and managed by a New Deal administration.

In all fairness to the unions it must be pointed out that they did not expect to find employers ready to bargain over this issue and that their uninhibited request was a strategic bid for publicity and a basis for future bargaining purposes. From that angle it has certainly served to bring the question dramatically before the nation. What began as a spectacular demand bids fair to become a principal slogan and objective of labor, adding a new feature to the elements of collective bargaining.

But the nature of the demand has also been a disservice in alarming many who would otherwise have regarded it sympathetically and in putting them on the defensive, so that their energies are spent in refuting and deflating the proposal. For they know that the general public remembers the sufferings of the 30's. Amazed at the extent of labor utilization during these war years, and inspired by the vision of full employment in the postwar, it has not had time as yet to consider carefully the commercial, economic and national implications and thus it might lend its moral support to hasty measures.

* From a forthcoming revision of the author's book on *Stabilizing Jobs and Wages*, (Harper & Brothers)

The instructions of President Roosevelt on March 20th that the Office of War Mobilization and Reconversion study the problem has proved a necessary sedative. A rational period is approaching when both labor and management will more soberly evaluate the possibilities and constructively plan its development and when the public will become more clearly aware of the opportunities and the limitations. As a contribution to this end the present paper is offered.

Evolution of Wage Guarantees

The history of wage practices with regard to length of notice for firing reveals an interesting trend and gives some clue to the feasibility of present-day proposals. For a long era workers were treated as a commodity, hired by the hour—clocked in and clocked out for even shorter times, as one would tools from the tool room, in accordance with the lack of efficiency, easy conscience, or bad shop habits of the company or the foreman. Among those engaged in office occupations the idea of weekly, monthly or annual wages came into vogue because any enterprise must have a basic staff with which to conduct its operations. But the distinction between them and direct manual workers with respect to the shortness of payment periods remained far too sharp. The classic case of malpractice, involving even the professional staff, was that of the multi-millionaire and philanthropist Munsey when, about twenty years ago, he sold his New York Herald to the Tribune. The two-hundred people on his staff learned of the action on the Friday morning when they were discharged and, when paid off later in the day, found that their earnings were only for five-sixths of a week. No wonder then that the American Newspaper Guild has made dismissal pay a basic condition in practically all its agreements.

The plans in existence for lengthened pay have emanated from three sources: first, in time, from the independent efforts of employers; second, from the impetus of the Federal overtime provisions, permitting exemptions to those with annual pay plans, and third, from the unions, which had not pressed for such measures until a year ago but previously had their part in certain forms of guaranteed pay.

It was inevitable that with the development of scientific management and the awakening of a public conscience industry itself would begin to revolt at the crude practices with respect to wage periods and that many would seek improved techniques or better financial planning to lengthen the period of assured wage payment. In retrospect we may see the development from small steps taken by those with less favorable conditions to large innovations introduced by the more advanced managements. A review of these, now to be presented, will give a picture of the forms which this movement has taken. Since many managements may wish to begin cautiously before entering upon full-fledged guarantees, this exposition may have further value in suggesting the bases for the experimental introduction of new plans.

Change from Casual Hiring

The first significant step to be taken by many concerns was the change from an hourly to a weekly wage for many of its intermittent occupations. For example, in meat packing, with see-sawing of live stock shipments from the farms, it was once customary to impose the irregularity entirely upon the workers. One hired would never know whether he would be working for a few hours or for the full week. In 1912, however, Swift & Company broke new ground by adopting what it calls its "guaranteed-time policy," assuring hourly and piece-work employes on its pay roll at the beginning of a week the equivalent of at least 32 hours pay. Other packing concerns followed the practice, and similar rearrangements have been made for casual workers in various trades. To give two examples, longshore employment, perhaps the most badly organized of all, was decasualized in many ports abroad and here. The hiring of movie extras, who used to get jobs somewhat like the mobs they occasionally represent on the screen, was put on a more systematic basis.

The extent of this movement is seen most clearly in Great Britain, where according to the British Information Service some 8,000,000 essential employes are enjoying benefits of a guaranteed work week. Under this plan the worker who is "capable of and available for work" receives a sum "not less than the normal wage for the prescribed period" whether the employer can keep him busy or not. If the worker's own job is unavailable, he must be willing to do anything "reasonably" required of him; but it will not necessarily be considered reasonable to ask a skilled man to handle a laborer's job.

Plans Based on the Levelling of Wages

a. Partial Withholding of Pay

Seasonal fluctuations in employment are a pervasive disturbance of the economic stability of the factory worker. In periods of seasonal slack, when his income is little or nothing, he is depressed by that

perspective and at the peak of the season, when prospects look good, budgetary prudence is hard to observe. That is why even professors' and teachers' salaries for a nine or ten-month year are usually parcelled out on a twelve-month basis. In order to help the worker in his war with human nature, a number of concerns began arrangements on the same principle.

This took several forms. In one of the first, employes were asked voluntarily to permit the withholding of all pay in excess of say a thirty-six-hour week, this to be given to them in weeks when they had worked less than thirty-six hours. But this and various savings plans offered to workers naturally had little general appeal.

b. Prepayment Levelling Plans

In comparison with companies which allowed the employe to draw merely upon past credits, other concerns realized the practical need for the reverse. They therefore established wage prepayment plans as a debit against future earnings above a norm, similar to the drawing accounts given to salesmen in periods when they have not earned their full commission. Naturally, this arrangement was made available only to those whom the company expected to retain in its employ. For example, the General Motors Corporation plan of this sort, adopted in 1939, applied to employes with at least two years' service and the total amount of the advance was restricted. It was given on somewhat better terms to those with five years' service, the provision in their case being to guarantee at least twenty-four hours work or pay per week. As a result of its first year's experience the company recognized that debits of this kind could not be carried indefinitely and it therefore provided that after three years from the date of an advance of pay an unrepaid advance would be cancelled.

Sears, Roebuck and Company, in a number of its large branch plants, until recently hired its workers with an understanding that when an employe worked less than forty hours per week the company would pay him for forty hours but would debit his record for the hours not worked. Subsequently when the employe had worked more than forty hours the excess hours were to be credited against debit hours. If there was no debit against an employe the value of the excess hours was not cumulated but was paid at the end of each pay period. The firm cancelled any debit hours charged to an employe's account when the services were terminated. The disadvantage of this plan was that under the Fair Labor Standards Act all work done in excess of forty hours was paid for at one and one-half times the rate at which the debit hours were acquired, and partly for that reason it was abandoned.

Another mail order house, Spiegel, Inc., of Chicago, overcame this difficulty by signing a formal annual wage guarantee agreement approvable under the Fair Labor Standards Act. This, as will be shown, permits more than forty hours work a week without overtime penalty. The plan further took upon itself the avoidance of too great a debt for the employes. It therefore provided that at the end of the calendar year any wage advances remaining outstanding would be automatically cancelled and employes could start anew with a clean slate.

A notable plan which uses the levelling principle is that of the Geo. A. Hormel & Company, of Austin, Minnesota, the first meat packing plant to establish a fifty-two-week pay basis. The guarantee, started in 1931 and revised in 1934, has been in force in its present form as one of the three most talked of and studied plans in the country. At the beginning of each year the company makes a forecast of its annual production, of the volume to be assigned to each department and of the wages which will be required to do the anticipated amount of work. It then pays out this money in fifty-two weekly installments. If at the end of a year a department has not produced its quota, the workers in it, as a group and individually, become indebted to the company for the balance as a first charge on any excess production obtained in a later period. The layoff of any worker under the guarantee must be made before the renewal of the guarantee period and thus, except under certain conditions, layoff may involve a full year's notice. Transfer of such workers to an extra gang has in fact prevented discharge of covered workers.

It should be noted that the guarantee has covered from ninety to ninety-five per cent of its employes—some 4,000 in number—and not all of the employes, as sometimes stated; that it is founded on careful management schedules and methods and on a previous condition of good industrial relations, and that because of these and other circumstances the company as a whole has been in a prosperous, growing phase of its career. The company's outlays for meeting some periods of heavy obligations under the plan have been regarded as more than balanced by the longtime values in labor efficiency and cooperation. The community in which the concern is located has vastly benefited from its production and wage policies.

An obstacle arises in state laws designed to assure workers prompt payment of their wages, for they make it impossible to accumulate wage credits from the busy weeks. It makes the plan work in one direction only, although credit hour accumulation may often be more feasible than accumulation of debit hours. This difficulty has discouraged or has caused the modification or abandonment of wage guarantee plans. The answer here, of course, is to obtain revisions of these laws to permit levelling plans.

COMPANY CONTRIBUTIONS TO WAGE PLANS

a. Part-time Guarantees

The Armstrong Cork Company adopted a plan similar to that of General Motors and at the same time improved on it by the provision that the employes would not be debited with any allowance required to maintain an average twenty-four hours of work per week, but that this would be paid by the company. The number of hours thus financed was limited in accordance with years of service.

b. Full-time Guarantees for Small Crews

Certain concerns apply the principle of the annual wage to a small proportion of regular workers. These form the largest group of employers who have annual guarantees. The impetus to the adoption of such practice for a limited few came largely from the possibilities of certain exemptions with respect to overtime pay for stable groups under a special provision of the Fair Labor Standards Act. Hence these plans will be described in that connection.

c. Graduated Wage Guarantees

Some concerns have bridged the gap between the two last types of plans by not attempting to give all workers on the pay roll the same guarantee. The Namm Store, of Brooklyn, New York, in February of each year guarantees a minimum of weeks of work, varying from fifty-two for its five-year employes to forty to those of only a year's service, with no guarantee to the rest. The Wrigley, Jr. Company, chewing gum manufacturers of Chicago, adopted a plan of "employment assurance" in 1934, applicable to employes with six-months' service, involving layoff pay of over two-thirds of wages for from sixteen weeks to twenty-eight weeks, depending upon length of service. The Quaker Oats Company, also of Chicago, which adopted a similar plan in the same year, offers layoff pay of from two months to those of six-months' service to six months to those who have completed three years in employ. McCormick and Company, Inc., a leading American manufacturer of extracts, spices, teas and other food specialties, which inaugurated a plan in 1933, goes further in covering its employes after a three months' probation period, though avoiding an unqualified guarantee.

d. Unvarying Guarantees for the Permanent Staff

The Procter and Gamble Company, of Cincinnati, Ohio, an old, prosperous company with an established market for such widely used consumer articles as Ivory Soap and Crisco, is one of the earliest to have adopted an income guarantee. Having first grappled with and, to a large extent, solved its management problems of irregular demand and production, it adopted a plan in August, 1923, applicable to workers who had completed two years of service. To such hourly paid workers it guaranteed forty hours of employment for forty-eight weeks per year (less certain time lost for holiday closings and certain emergencies, which reduced the net guarantee to nearer forty-six weeks). Even this company has guarded itself against possible financial disaster from its plan by a clause which protects it in extreme emergencies.

PLANS RELATED TO BUSINESS INCOME

A distinctive type of plan bases the wage advances not on a minimum work-week unconnected with business conditions but on a definite relation to the company's income. This is the principle used by the Nunn-Bush Shoe Company, of Wisconsin, which has long been in the spotlight for its fifty-two-pay-checks-a-year plan. The company inaugurated its present scheme in July 1935, with the aim of avoiding a wage guarantee which might maintain labor costs out of proportion to the prices at which its shoes might be sold or to the quantities. Discovering by analysis that labor's share over a period of years had hovered with striking consistency in the neighborhood of twenty per cent of value, the company set up a group salary fund of this per cent on the estimated year's production and arranged to have this amount divided on a fifty-two pay check basis to the bulk of the workers in proportion to their hourly rating.

Noting also that the net average weekly work-period at the time of starting the plan was thirty-seven hours, all the workers covered by the plan were given a minimum of thirty-seven times their hourly share for the fifty-two weeks. The number of hours given is at all times, however, related to the twenty per cent allotment and is thereby adjustable to this figure.

A system of drawing accounts has been set up which is in fact made for a full fifty-two-week year of employment, the amount to vary in accordance with shoe prices and production costs. The loss and share suggestion in this plan is understandable in terms of excellent relations between management and workers developed over the years.

We have now passed in review the principal examples of lengthened wage guarantees with which managements have experimented without union demand or with incidental union participation. All these described were prior to the coming into full force of a law which gave a different turn to the movement.

Plans Stimulated by Federal Exemptions from Overtime Pay

The Fair Labor Standards Act has provided, since 1940, that workers covered by it, when employed more than forty hours a week, must be paid overtime at not less than one and one-half times the regular rate. But in order not utterly to discourage concerns from balancing their schedule on an average forty-hour week or from giving overtime to the regular employes at peak seasons, its Sections 7b1 and 7b2 exempt employers from paying the overtime rate if they offer certain wage guarantees. Such plans must be based upon an agreement made with a bona fide labor group certified by the National Labor Relations Board.

Sections 7b1 and 7b2 read similarly but are different in effect. Under Section 7b1, involving a half-year period, the labor contract must merely *limit* employment to 1000 hours in any twenty-six consecutive weeks. It can thus offer no more than an average 38½ hour week but it may yield less, to whatever figure the two sides agree upon. Actually this is a concession to employers and it need involve no large guarantee. Up to January 1 of the present year, 295 collective half-year contracts had been submitted to the Wage-Hour Division of the U. S. Department of Labor under Section 7b1. A few of the agreements were counted as one although they were association contracts which embraced a large number of firms. For example, six trade associations were listed as individual contracts but it is known that two of these associations had 475 members. Hence the actual number of firms involved, even though small ones, was much larger than the number of contracts submitted to the Wage-Hour Division.

But they are not semi-annual guarantees. They are wage agreements for stipulated amounts of employment during these half years. Their chief advantage has been to enable some seasonal overtime without penalty to be offered to regular workers by agreement with the unions, rather than have it given to extra workers during regular hours.

Of the 295 contracts submitted, 143 were associated concerns in millinery, 55 in men's clothing, 46 in printing and publishing, 11 in longshore work, 10 in road construction and the rest scattered. The number of employes covered by these agreements has not been recorded, nor is it known in how many of these cases the contracts have gone by the board. It is to be borne in mind here that these union contracts are not uniform. For example, an official of the United Hatters, Cap and Millinery Workers of New York writes that each contract signed with an employer treats the guarantee individually.

Section 7b2 is more stringent. As amended in 1941, contracts under it must limit hours of work or pay to 2080 hours in any fifty-two consecutive weeks (equivalent to a forty-hour week). As interpreted by the Wage-Hour Division of the U. S. Department of Labor, the contract must also contain a provision guaranteeing (1) employment at a fixed annual wage, or (2) continuous employment for fifty-two weeks at some approvable level on the regular pay basis, with time for vacations, paid or unpaid, or (3) regular pay for 2080 hours. The general tenor of the interpretations implies that no mere token employment or small minimum amount per week would pass muster if brought to test and, with the extra hurdle of union agreement to such a plan, the provisions of the law have not been widely used. Only fifty-nine contracts were on file under Section 7b2, of which nine were in textile printing and dyeing, a few in food processing, and the rest scattered.

Neither these fifty-nine contracts nor those under 7b1 were formally approved. The Wage-Hour Division receives them for filing and indicates their deficiencies but does not approve or disapprove them or supervise their operation. It does not have to be notified when a contract of this sort lapses. Satisfactory information on the provisions of these plans is not available in tabulated form but it is known that at least half under 7b2 did not grant forty-five weeks in their guarantee and many might not qualify for exemption if challenged.

The salient feature of Clause 7b2 is the latitude given to the two parties to make a union contract of this sort for part of the work force or, theoretically, even for a single worker. And small minorities, indeed, are the basis for practically all the plans filed under

this clause which have not already been described as instituted by management. Some concerns, as illustrated by three textile companies, have set apart for a guarantee the employes in some small, highly-paid, skilled craft who are indispensable to the business, this group amounting in some cases to only three per cent of the employes.

Recapitulation

A review of certain features of the known annual wage plans reveals that those concerns which particularly deserve attention because their guarantees are substantial have certain common bases and provisos:

(1) They represent fortunate conditions, excellent management, profitable business, widespread consumers' market—production of consumers' goods or merchandising of them—long previous experience in the matter of production stability, and other factors which made them ready to experiment with financial obligations on this score. The plans in use today represent the fruition of good planning and the cultivation of sound industrial relations policies and they were voluntary in adoption.

(2) Even these concerns have hesitated to venture far out of their depth—a caution which may well be considered significant in connection with recent proposals. Aside from not covering all workers in their plans, reserved powers and safety margins have been included and the possibility of extreme emergency technically provided against. Thus the Namm plan permits itself certain modifications under emergency conditions, as does so large and powerful a company as Procter and Gamble, though in neither case is it expected that the companies would take drastic action.

The adoption of an obligatory nation-wide or even industry-wide policy does not reasonably follow as a result of the few examples and limited experience so far reviewed. Other grounds have to be considered.

Wage Guarantees and the Unions

Partly because of tradition and chiefly because of a sense of economic realities, few unions have previously attempted to get annual wage guarantees of an extreme sort into labor contracts. The agreements listed under Clause 7b2, previously discussed, were in the main initiated by employers. Instead, union contracts have normally called for seniority clauses, equal distribution of work and dismissal restrictions, and sometimes for dismissal pay, indemnities for technological change, and unemployment insurance.

Demands emanating from unions for employment and wage guarantees have been such as have earned public sympathy and respect. For instance, one of the official proposals of the United Mine Workers, in its 1937 wage negotiations in the Appalachian fields, was for a minimum annual guarantee of two hundred days employment each year. Clauses stipulating the guaranteed number of weeks of work actually found in union contracts in such industries as women's clothing or hosiery have been for forty weeks or less.

With regard to such guarantees, the most recent and comprehensive survey of union contracts reports that clauses concerning guaranteed employment or annual wages apply to only 42,500 workers out of 8,000,000 covered by the perhaps 8,000 union agreements analyzed. It states:

> Most of these workers (approximately 30,000) are employed in the service and distributive industries, the agreements for which were negotiated with companies employing relatively small numbers of workers. Although there are a few outstanding examples in manufacturing companies of considerable size, the total number of employes in manufacturing industries who are covered by agreements providing guaranteed employment is very small—about 12,500 . . .
>
> Most of those which are in effect are limited in scope. Some restrict the guarantees to particular groups of workers; some provide less than a year's guaranteed employment; some permit the employer to cancel or reduce the guaranty under specified circumstances.[1]

One reason which has operated against a better showing has special significance with regard to union attitudes toward future wage guarantees. If an annual wage plan is intended to *stabilize* workers' incomes and not particularly to *increase* them, except through steady work—and in the present stage of development this certainly is the feasible goal—workers receiving higher daily rates because of irregularities in their employment must be willing to make suitable concessions for an annual wage. This is especially to be desired in such cases as those of building trades workers, who have always made claim to high daily rates because of the many days lost per year. The employer who undertakes wage guarantees will probably have to spend more on sales promotion, accept lower contract figures to get winter or off-season contracts, add more staff for planning, keep a larger inventory and take more financial risks. Yet the extent of this is likely to be overlooked in wage bargaining discussions over such plans.

[1] U. S. Monthly Labor Review, April, 1945, pp. 707–708.

On an individual basis concessions could probably be obtained on a wide scale. But under the present unsettled conditions of union organization, such proposals would have hard sledding. It would be extremely difficult to get workers to accept a seeming reduction of daily wages even though raised on an annual basis, because they view the problems too closely. As one labor leader once expressed it: "If we work irregularly 200 days at $10 a day, to work 250 days at say a guaranteed $2100 is to hand the contractors 40 days of free work."

At no time in the history of housing has there been a better opportunity for long range wage guarantees in building construction than is likely to be the case in the postwar period. The volume of work waiting to be done is expected to be large enough to carry forward for more than one annual guarantee. This would be almost certain if the expected increase in building costs—which will make many people withhold construction—were minimized through efficient use of building labor, extension of the work year, and reduction in labor cost partly through plans for guaranteed wages. But just because of these favorable conditions building trades workers may be difficult to convince. Moreover, the achievement of low labor cost may run counter to certain restrictive rules and practices intensified by competitive union relations.

In certain cases trade unions now allow customary wage differentials between steady employment and irregular employment. For example, maintenance workers, such as carpenters, whenever employed on a full-time basis by industrial companies, department stores and office buildings, are paid lower rates than on work in which special contracting and discontinuity of employment are normal. But though such precedents exist and the logic of the situation would justify marked concessions to employers who were willing to undertake the risk of annual pay, the amount of opposition likely to be voiced in a union, even though from a minority, is certain to make arrangements of this sort difficult.

There are instances—very few indeed—where contractors have undertaken employment guarantees which would cover most of a year and where they worked successfully. There is room for important developments in this direction.

Evaluation of the CIO Demand

What preparatory basis has been laid, therefore, for the sudden demand made by the United Steel Workers (C.I.O.) in March, 1944? It asked that a 17c increase in hourly rates be made and that for the life of the contract then being arbitrated for some 519,000 wage earners, every employe be guaranteed a full-time weekly wage of forty hours per week at the average straight-time hourly rate of the year preceding, including vacations and holidays on the usual basis. That is what has also been asked by the Auto Workers, Electrical Workers, Rubber Workers, Shipbuilding Workers, and others, as the standard C.I.O. demand. The National War Labor Board, in its decision of Nov, 25, 1944 respecting the Steelworkers, unanimously recommended further study by a separate commission appointed by the President and cited without dissent the steel panel report that the demand in its present form would involve serious financial risks and be unworkable.

How feasible, then, is the union demand that an employer guarantee the entire annual pay roll for a full year ahead? How many prosperous concerns can take on this financial risk? How many struggling companies could live through a bad year with such a liability? How many new firms would be able to enter business with such financial obligation?

Even a company which is noted for its forward-looking philosophy, for its cooperative basis of ownership and for a management having the sincerest interest in providing stability for its employes is not thereby protected from the havoc of excessive or premature business commitments. For example, the Columbia Conserve Company, of Indianapolis, a pioneer in annual wage payment, put its whole force on a salary basis as early as 1917. But the company's business was greatly affected by difficult competition with large canners and its plan had to be modified to permit a safety margin of almost thirty per cent of the wage earners without an annual guarantee to be used at the peak of the canning season.

But what if the Government and the unions, working together, would impose an obligation for an annual wage such as the C.I.O. demands? While this extreme situation is unthinkable, the thought of it brings certain practical problems into sharp focus.

Increase in Labor Displacement and Friction. The measure would itself maximize unemployment. The pressure on industry would be to use a skeleton staff, for the liability of a worker on a pay roll would be so great that employers would be obsessed about avoiding replacements or new hirings. They would seek every possible labor saving device. A company anticipating a succeeding year of lowered employment is

likely to start reducing the number on its pay roll well ahead of the time of the renewal of the contract, so as to take on a lower obligation. It would be enormously difficult to adjust the resulting conflicts of industrial relations. The date at which labor agreements are to be concluded will become a major issue. For example, the Namm Store makes its guarantee as of February 1st, when the store is usually down to its basic force. Layoffs and reductions of employment at such times are likely to become a matter of considerable friction, with misunderstanding if some unexpected turn lifts the prospects of business (and necessarily the number on the pay roll) shortly after the guarantee for a lower force has been signed.

Discouragement of New Ventures. Annual wage liability of new companies would discourage their going into business. There would have to be exemption of new companies but this would make it worse for existing concerns. The argument has been made that enterprises facing such a liability would have a powerful incentive to seek means of maintaining stability. To a degree this would be true. More generally the liability of a full year's wage would excessively stimulate a concern—it would give it an overdose.

Freezing of Capital. Let us assume, however, that employers will actually be able to lay aside the reserves necessary to protect workers against adversity any time during the full year. Since such a demand would be renewable, the measure would immobilize a vast amount of capital. The steel industry has calculated that for the four years 1936–1939, at the average straight-time rate of almost $1.07 per hour paid in January 1944, the annual pay roll cost of guaranteed man-hours not worked would have averaged $260,000,000. It would have been much more in the earlier years of the thirties, when the reserve was the more needed. Such unused liquid reserves, which might otherwise be venture capital or used for improvement, would be deflationary in their effect.

The point is made by unions that the purchasing power thus distributed would head off depression. If they are thinking of this advance as coming from the Government, this might well be true. But in a system of individual enterprise, where would such advances come from? What practices would compensate employers for the cost? In order to keep labor employed, concerns might produce more for stock than justified, with the danger that when the inventories would suffer liquidation we should have a crash. In any event, would not the increased overhead of doing business and the increased direct cost of labor tend to increase prices and thus perhaps depress the physical volume of production?

Freezing of Labor. Under existing conditions it is normally difficult to get employes to learn new skills, to accept transfer to new jobs, to go to new industries, to move to new localities. The spread of seniority practices has seriously increased this inertia. Annual guarantees of the wrong sort would tend to create and prolong stagnant pools and uneconomic reserves of labor. Workers would merely wait idly—perhaps foolishly—for their return to their jobs. If adopted for only part of the working force within a concern before it was ready from a management standpoint, the attempt of the employer to keep that part employed at the expense of the rest would sharpen jurisdictional lines among unions and increase inflexibility in the labor market.

Impairment of Discipline. What is likely to happen to the attitude of the worker who, if chosen for layoff, can get his full salary without work? In Mexico in 1938, I had an example of this. In a store I was occasionally waited upon by a surly, offensive salesman. The owner himself once complained to me how often he had admonished this employe and explained: "He's been here eleven years and under Mexican labor law an employe laid off is entitled to thirty days' dismissal pay and thirty days more for each year of service. To fire him would be to give him a full year's vacation at my expense, and that's just what he wants."

Some may propose, then, that rules be devised to insure that workers genuinely seek work, that they patronize the public employment exchanges with this purpose and that they be given their pay only when they meet their obligations. But this leads to a key question about the whole proposal. It is:

Why Undermine or Duplicate Unemployment Insurance? Social insurance laws involve a great social discovery—the magic of actuarial science and the pooling of the risk for the benefit of mankind. Its administration is expressly designed to dovetail or pool financial risks of different industries, to avoid payment for voluntary absence from work, to pool also the reserves of labor, and to minimize abuses of insurance laws. Such control over the labor market would become inapplicable to concerns in which idleness was paid for and social support encouraged on an uneconomic basis. If provision for a full-time wage is desired, can it not better be obtained under unemployment insurance by lengthening the period and increasing the benefits?

In industries covered by unemployment compensation acts, the payments of unemployment compensation benefits even in such a prosperous year as 1941 offset less than one-tenth of the income loss through unemployment.[3] That a larger proportion should be offset is now generally agreed and this was indeed the purpose of recommendations to Congress concerning the Social Security Act by President Truman. These revisions are, however, still a far cry from an annual guarantee of full wages to all workers to be given by separate industry groups. If anything like an annual wage to be guaranteed everybody is to become national policy, it should be undertaken primarily as a program of the Government, as is at least the merit of the Beveridge plan in England. As such, its far-reaching terms will have to be studied and its implications upon our industrial and political system fully debated.

Captivating as the idea is of an annual wage for everybody, its attainment will not come the easy way through blanketing of financial obligations upon industry. Obviously a particular concern in the machine tool industry or in most durable goods is in far different position with respect to payment of an annual wage from that of a chain grocery, a food products factory, a department store or any business close to basic annual consumers' requirements. The road which must be travelled first is that of making productive employment available with sufficient continuity, concurrently improving social security measures so that seasonal irregularity will be minimized and cyclical miseries become less of a dread.

Annual wage plans in most cases will operate to give an inner circle the maximum security, a second circle a variable annual wage, and a third marginal group fluctuating or temporary employment or wages. This raises the objection that annual wage plans benefit one group. The issue is less important when a large proportion in a plan are covered and when those in the temporarily unstable group are, without too long a wait, eventually incorporated into the inner circles of the more protected strata. If short-time work cannot be a mere preparatory period for ultimate acceptance among the protected workers, supplementary unemployment compensation plans by private concerns themselves, along with liberal payments under the Social Security Act, are clearly the feasible remedy.

A concern or industry must be well on the way to finding the secrets of stabilization before it can take on substantial obligations for annual wages. The maximum use of professional ingenuity applied to research and planning, sales, production and personnel administration must have been so successfully applied as to leave only a limited short-time risk. Unions should exercise their powers selectively in this program, not merely by putting pressure on inefficient and neglectful employers but by cooperating flexibly with those managements which are seeking to increase stability. To develop appropriate plans of annual wages means, on both sides, adjustment and not mere rigidity, sacrifice and not one-way demands.

Public opinion and direction, too, have a long way to go in defining and administering the policies which make for national economic stability. After such a process of fundamental advance, annual wage guarantees, ranging from moderate beginnings to full coverage, will become more natural and frequent, as the capstone in the building of a constructive, forward-looking industrial relations policy.

[3] Sumner H. Slichter "Postwar Labor Stability" in American Management Association, Personnel Series Number 79, 1944.

Development of Instruments for Selecting and Placing Factory Employes

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FROM a personnel and industrial relations point of view, as well as from the standpoint of efficient plant organization, it is fundamental that the total worker force be: (1) stable, (2) productive, and (3) satisfied.

To reach these goals, intelligent *selection* and proper *placement* of new workers are primary, although many other factors such as training, supervision, compensation, working conditions, and grievance handling are also pertinent.

Selection and placement are so closely related that the results of one cannot be judged without making major allowance for the influence of the other. The best selection procedures will be rendered ineffective by improper placement; placement instruments are of optimum value only when used with "good," i.e., well selected, men. "Good" men are those who are (1) stable—stay on the job; (2) are productive, or industrious; and (3) will be satisfied and happy in their work. However, potentially "good" men may easily turn out poorly if misplaced. On the other hand, "poor" men, those who are inherently unstable, unproductive, or chronically dissatisfied, will be a liability regardless of their placement—in short, it is a waste to spend time and money to use placement instruments with "poor" men.

The problem of *selection*, then, becomes that of developing instruments and methods which will give the best aid in choosing those applicants who have the most promise of being "good" men; and rejecting those who show the least promise. Let it be emphasized here that a "good" man may be mentally dull; have relatively poor motor coordination; lack speed and accuracy of perception; and be deficient in experience, training and education. It may be obvious that he has no capacity for doing any job more complicated than that of a sweeper. Yet, if his personality make-up is such that he will be stable, industrious and contented on *that job*, and it is open, he is potentially a desirable employe. If he is put on a job that requires more than his limited abilities, and he subsequently fails, the error is one of *placement*, not of *selection*.

When employes of the right type have been selected, the problem of their *placement* becomes that of developing instruments and methods to put them on jobs where they can utilize their mental and physical aptitudes most effectively. It is a fundamental principle that *satisfactory placement presupposes the selection only of "good" men*. A man may be mentally active, possess excellent motor coordination, have rapid and accurate perception, and be adequately trained, experienced and educated. Yet, if he is unstable, or lacking in industry, or a mal-content, he will be an undesirable employe regardless of his assignment. He is a "poor" man; the mere possession, even to a high degree, of needed aptitudes and abilities cannot offset his intrinsic lack of worth. He will not stay long, nor will he produce while he does stay. He will be a liability to the company that hires him. When this man fails, the error is one of *selection*, not of *placement*. This is why aptitude tests, when their results are analyzed without regard for the personality variable, i.e., the "goodness" or "poorness" of the men, rarely show a high degree of validity—correlation between test performance and job success.

The complex of traits that make up a "good" man are, essentially, such personality factors as: stability, perseverance, ability to get along with people, the habit of industry or hard work, a certain degree of self-reliance, and the attainment of a reasonable emotional maturity. It is important, also, that he be well motivated, i.e., have incentive to work. The best measure of the extent to which an applicant has these personality traits and may be expected to exhibit them in the future is the degree to which he has manifested them in the past. As yet, no psychological test has been devised that, when used in an employment situation, can adequately measure either these personality traits

or motivation. Best results have been obtained by the use with applicants of standardized or patterned interview techniques.[1]

Many aptitudes, interests, and specific mental, physical and perceptual abilities can be fairly well measured by the use of psychological and psychophysical tests. For certain jobs, especially those in the office or factory, well validated tests can be of considerable value in screening out those individuals who lack the minimum degree of ability required. To be employed with safety, however, *any test used for placement purposes must be validated for the specific job or jobs in the particular company for which it is to be used.* The popular but erroneous belief that psychological tests can be used as *selection* instruments has caused, and is causing, much difficulty in industry. For example, much has been written about the use of tests in the armed services. There is no question but that during World War II psychological tests have been developed and used to a greater extent than ever before in history. But this has been almost solely for *placement* purposes. The inductee who was *selected* on the basis of his test results has not yet donned a uniform. *Selection* has been almost exclusively by *interview.* Only a few groups, e.g., prospective flyers, are given any tests until *after* they are in the service.

A Practical Example

The scientific development of an integrated *selection* and *placement* program, and the results to be expected from it, can aptly be illustrated by a study recently completed at the plant of the Link-Belt Ordnance Company in Chicago.

In February, 1943, an interviewing and testing program was initiated. All persons hired were both interviewed and tested. However, the test results were used neither in initial selection nor placement and the interview findings were not reported to any of the foremen or superintendents.[2] Instead, the data were permitted to accumulate until July, 1944, at which time an analysis of the results was begun. The methods used in the study and the results obtained were as follows.[3]

The plant of the Link-Belt Ordnance Company was engaged primarily in the fabrication and assembly of heavy equipment for the armed forces. It was strictly a war plant, having been established in 1942, and employed roughly 1200 persons, both men and women.

[1] A comprehensive treatment of standardized or patterned interview procedures can be found in the book, "Handling Personality Adjustment in Industry," Robert N. McMurry, Harper & Brothers, New York, 1944.

[2] The only exception was the fact that the Wonderlic test scores (intelligence) were made known to the interviewers to aid in their evaluation of the applicants. These scores were not reported to the foremen or superintendents.

[3] Taken by permission from a report submitted to Mr. E. L. Berry, Vice-President of the Link-Belt Company.

The primary objective of the research study undertaken there was to determine the value of selection and placement procedures for work of the type in which the Link-Belt Company, the parent organization, is engaged. A secondary objective was to improve ultimately the quality of the men and women hired and placed at the ordnance plant.

The project was undertaken in three steps: (1) the study of the jobs; (2) the development of the selection and placement instruments and procedures; and (3) the determination of their validity, i.e., the consistency with which they did predict, or would have predicted, success on the job.

Although the work conducted in this plant was similar to that done in numerous other companies where tests and other procedures have been developed, all instruments and procedures used were custom-tailored to the specific requirements of the jobs in this company. In short, each procedure was subjected to trial with actual applicants, and a careful analysis made of the results before final recommendations were made relative to use of the instruments or the methods.

Two types of instruments and procedures were used in this research program. They were: (1) standardized Patterned Interview procedures; (2) psychological tests. Experience in comparable organizations has indicated that they offer the greatest promise in the selection and placement of plant employes.

A Basis in Job Descriptions

As indicated, the first step in developing these procedures was to make a comprehensive study of all of the jobs in the plant. Descriptions were obtained of the principal operations and, in addition, they were carefully observed. On the basis of this preliminary study it was possible to make first judgments concerning the skills, aptitudes, intelligence levels, and personality qualities required for success on these particular jobs. This information then determined which tests were to be used and also established the pattern of questions to be covered in the interview. As a result of this preliminary study, it was decided to incorporate in the research program the following tests: (1) the Wonderlic Personnel Test (a measure of verbal intelligence); (2) the Kellogg-Morton Revision of the Army Beta Test (a measure of non-verbal intelligence); (3) the Thurstone Identical Forms Test (a measure of speed and accuracy of perception); (4) the Bennett Mechanical Comprehension Test (a measure of mechanical aptitude); and (5) the Minnesota Rate of Manipulation Test (a measure of hand-arm dexterity).

A standardized Patterned Interview was designed to measure such personality traits as (1) stability, (2) industry, (3) ability to get along with others, (4) self-reliance, (5) willingness to accept responsibility, (6) freedom from emotional immaturity, i.e., peculiarities of personality, as, for example, hypochondria, which might interfere with the applicant's acceptance in the work situation or success on the job, and (7) his motivation or incentive to work steadily and productively. This interview included a careful review of the applicant's work record, schooling, home environment as a child, present financial and domestic situation, and health record. Personal history data, so classified, have been found to be significant in interviewing since, if the individual manifests any personality traits which are seriously undesirable, evidence of them is very likely to be brought out when these five areas of his background are reviewed.

As previously indicated, the value of the Patterned Interview as a predictive instrument is based upon the assumption that the best ground on which to predict what a person will do in the future is a careful review of what he has done in the past, i.e., that persons rarely make radical changes in their personality make-up. If they have been stable, industrious, conscientious, and able to get along with others in the past, it is reasonable to assume that they will continue to be able to do so. If, on the other hand, they have been unstable, chronically dissatisfied or irresponsible in the past, *it is very likely, other things being equal that they will continue to show these traits.*

In order most effectively to predict behavior on this basis, it is imperative that the maximum number of *facts* be obtained about the applicant. Many of these can be gained from him, but not all. Some important bits of information he may be reluctant to give. This is particularly true of unfavorable facts such as discharges, demotions, bad habits, and financial and domestic difficulties. These are best obtained from others.

References are extremely unreliable because few people name persons who they think will speak ill of them. Credit reports often provide useful information, but are frequently slow in arriving. To have maximum value *this supplementary information must be obtained in advance of the interview.* Therefore, the most immediate and reliable source is *previous employers.*

The technique which proved most effective consisted of a personal or telephone check made with the last and next to last employer. A standard series of questions was prepared. These covered the dates of the applicant's employment, the nature of his work, his rate of compensation, the reasons why he left, and the attitude of the employer toward him as indicated by the former's willingness to re-employ. In the event that the employer was unwilling to re-employ the applicant, he was asked to give his reasons. The recorded information obtained on this telephone check served a double purpose: first, it provided a control on the accuracy of the applicant's statements on his application form; second, it provided the interviewer with important facts to use as a background in the Patterned Interview.

After the tests had been selected, and the telephone check and Patterned Interview procedures had been prepared, the program was ready to go into its second phase. Members of the personnel staff of the company were trained in the use of these techniques. All of the actual testing and interviewing was carried on by R. N. Mankey, Personnel Manager; Nadia Sabador, Employment Manager; and Lloyd Van Winkle, Employment Interviewer. None of these had any previous specialized training in psychology or psychiatry. Their training in the technique of interviewing included ten hours in the theory of personality, followed by another ten or fifteen hours of supervised practice with actual applicants. They were also given approximately five hours training in the administration and scoring of the tests. Following this training, for a period of roughly a year and a half, members of the Personnel Department gave each applicant the battery of tests, made telephone checks with his last and next to last employer, and interviewed him or her prior to employment. In addition, in order to obtain a larger number of cases for test validation purposes, the test battery was administered to 769 employes who had been hired previously.

However, as already pointed out, the test findings were not used for actual placement. New employes were often shifted from job to job several times before they were finally placed. The tests could not be used for *placement* purposes until the completion of the investigation and analysis to determine job applications and validities. Hence, the tests were not even scored (except for the Wonderlic) but were put away in the files for subsequent ana ysis after the tested employes had been on their jobs long enough to ascertain success or lack of it. The fact that the tests were not scored at the time of employment thus

eliminated any possibility that the test results would influence members of the employment department in accepting and placing the employe.

The actual employment procedure was as follows:

All applicants first made out the regular company application form, after which they were subjected to a brief screening interview. This eliminated those who were not citizens, those who did not have releases from previous employers, or were obviously unsuited. The remainder were told to come in the next day. During this interval the telephone checks were made. When they returned, they were tested and interviewed.

At the completion of his Patterned Interview, each applicant was evaluated—on the basis of the *facts* which had been gathered and recorded—and scored or rated. If he appeared to be unusually promising, he was given a score of "1." If he looked good, but was not outstanding, he was scored "2." Those marginal applicants who did not look especially promising, but whom it was thought worthwhile to consider anyway, were scored "3." Those who were clearly unpromising were scored "4." During the first part of the program the labor market was such that it was not necessary to accept applicants who were scored "4." Later, however, the labor market deteriorated to the point where it was thought necessary to accept applicants even though they appeared to be definitely unpromising. Hence, subsequently, a total of 70 men and women rated "4" were employed.

Validation of Instruments

After an adequate number of employes had been tested and interviewed, the program was ready to go into its third phase: the validation of the selection and placement instruments and procedures. Two separate criteria of job success were employed: length of service and foremen's ratings. Length of service was computed from pay roll records. Comparative ratings were obtained on as many as possible of the employes who had been interviewed and tested. In order to insure the maximum degree of objectivity and accuracy in this evaluation, independent ratings were secured from three persons who were familiar with the employe's work. In each department the foreman made a rating, as did the general foreman. In addition to these ratings, the Employe Rating Supervisor, who was in charge of personnel records but did no interviewing, also classified the employes on the basis of their job production.

The procedure employed to obtain the Success-on-the-Job rating was as follows: Employes were first classified by jobs, then, secondarily, in terms of the level of their skill and training on that job. With each of the resulting groups the rater was first asked to divide the employes into two numerically equal classifications: those above average and those below average. They were next asked to take these two classifications and indicate those employes in the above average group who were outstanding and those in the below average group who were very poor. The outstanding employes were marked double plus (++); the above average but not outstanding employes were marked plus (+); the below average but not strikingly poor employes were marked minus (−); and the very poor employes were classified as double minus (− −). In this manner a reliable four-category index of each employe's success was obtained, independently, from three different raters. The final or over-all Success-on-the-Job rating for each employe was developed by taking the median of the three independent ratings. Some of the employes were given only two ratings. If these two ratings agreed, they constituted the individual's final Success-on-the-Job rating, otherwise he was dropped from the analysis, as were those who received none, or only one, rating. Altogether, 748 employes—562 men and 186 women—were given Success-on-the-Job ratings. Fairly complete interview and test data were also available on the majority of these.

The actual validation of the instruments was begun by determining the relationship between the employment interviewers' initial ratings or scorings of the applicants and the length of time they remained on the job. For this part of the study *only employes who had already left the company were included.* Those who were still with the company were excluded because it was impossible to ascertain reliably how long they would stay on the job. Hence, a total of 587 employes who had been interviewed but had left the company prior to May 1, 1944, were used to validate the interview as a means of predicting length of service.

Table 1, following, shows a comparison of the ratings on the interview with the length of service of the 587 employes studied.

Table 1 shows the efficacy of the standardized or Patterned Interview as a predictor of job stability. A little addition will show that 70 per cent of the poor group (scored "4") had terminated service before two months, as compared to only 7 per cent of the good group (scored "1"). The groups scored "2" and "3" have been combined since, in practice, this discrimination did not differentiate length of service. It must be

remembered that the majority of the applicants who were scored "4" on the standardized interview were not hired at all. The data plainly show that, of the "4" rated applicants who were hired, the vast majority were a liability rather than an asset to the company. They did not stay on the job long enough to make an adequate return for the time and money invested in processing and training them.

COMPARISON OF INTERVIEW RATINGS WITH LENGTH OF SERVICE
(Employes who left before May 1, 1944)
INTERVIEW SCORE

Length of Service	1	2 or 3	4	Total
1 year and over....	33 (45.8%)	128 (28.9%)	3 (4.3%)	164 (28.0%)
6 mo. to 1 year....	20 (27.8%)	129 (29.0%)	4 (5.7%)	153 (26.0%)
3 mo. to 6 mo.....	8 (11.1%)	65 (14.6%)	7 (10.0%)	80 (13.5%)
2 mo. to 3 mo.....	6 (8.3%)	45 (10.1%)	7 (10.0%)	58 (9.9%)
1 mo. to 2 mo.....	4 (5.6%)	38 (8.5%)	7 (10.0%)	49 (8.3%)
1 week to 1 mo....	1 (1.4%)	26 (5.7%)	14 (20.0%)	41 (7.1%)
Less than 1 week...	0 (0.0%)	14 (3.2%)	28 (40.0%)	42 (7.2%)
Total..........	72 (100.0%)	445 (100.0%)	70 (100.0%)	587 (100.0%)

Note: The percentages, in parentheses, give the proportion of the respective rated groups who stayed on the job the length of time indicated. The number above the parentheses is the actual number of cases.

TABLE 1.

The picture is not yet complete. The fact that an employe stayed on the job a satisfactory length of time indicates stability, but is only a crude measure of the degree of success he attained on the job. The following table shows a comparison between initial scores on the Patterned Interview and the Success-on-the-Job rating obtained one to one and a half years later. Only 407 employes—275 men and 132 women—had both interview scores and Success-on-the-Job ratings. (Although there is some overlapping, the success-rated group in Table 2 is composed largely of employes in service at the time of rating, whereas the length-of-service group in Table 1 was composed entirely of past quits.) Only eight employes who had been scored "1" on the interview were available for this part of the analysis. Many had quit, after a satisfactory period of service, and some had moved on to positions of greater responsibility. The Success-on-the-Job rated group comprised those rank and file employes, with at least one month's tenure, at present in service, or who had left the company in the two or three months previous to the rating.

COMPARISON OF INITIAL INTERVIEW SCORE WITH SUCCESS RATING
(Men and Women Combined)
SUCCESS-ON-THE-JOB RATING

Interview Score	Very Poor	Below Average	Above Average	Out-standing	Total
1			2	6	8
2		13	88	8	109
3	4	176	75	3	258
4	23	8	1		32
Total	27	197	166	17	407

Total—407 cases
Correlation (Validity) = .68 ± .015
TABLE 2.

It is notable that *none* of the employes who were scored "4" on the Patterned Interview was rated as "outstanding" in Success-on-the-Job, and only one was rated "above average." The Patterned Interview here shows a validity of .68, with a probable error of .015, for predicting Success-on-the-Job. This is roughly as high an index of prediction as is ever obtained in a practical situation. Most applicants who scored "4" on the interview were not hired; a large proportion of those who were hired did not stay long enough to be eligible for a Success-on-the-Job rating. Thus it is probable that the true validity is even higher than the .68 found in this study.

The tests were not validated against length of service—only against Success-on-the-Job. Of the five tests used in the study, all showed some degree of relation to the Success-on-the-Job rating for one type of work or another. The most surprising results were obtained with the Thurstone Identical Forms test, a measure of perceptual speed and accuracy with a very short time limit—only four and one-half minutes. The Wonderlic Personnel test, a reliable, 12-minute time-limit test of verbal intelligence, showed the least direct relation to Success-on-the-Job, as might logically be expected with a group of rank and file plant employes.

The first step in analyzing the test data was to divide the employes for whom both test scores and Success-on-the-Job ratings were available into more or

less homogeneous job groups, i.e., assembly workers, cranemen, etc. Each group was then analyzed separately. Correlations in each job group between test scores and Success-on-the-Job ratings were calculated for men alone and again for men and women combined.

Test correlations were not calculated separately for women for three reasons: (1) the comparison of scores and ratings of the women tested showed no marked differences from the scores and ratings of the men tested; (2) in several groups there were not enough women to constitute an adequate sample; and (3) it was felt that, in the post-war employment period, the vast majority of plant employes hired would be men. In any event, it is felt that no injustice will be done to post-war women plant employes if the test standards they are required to meet for placement on a given job are the same as those for men.

In general, test score correlations with Success-on-the-Job ratings also run uniformly lower for women than for men. This is possibly due to the fact that the men supervisors had had little previous experience in evaluating women employes and consequently had difficulty in rating them fairly and accurately.

Table 3 shows the number of cases in each occupationally classified group and the median scores for each group on each of the five tests.

The make-up of the groups classified as Assembly, Cranemen, Inspectors and Arc Welders is self-explanatory. The Machine Operators group included operators of Horizontal Boring machines, Radial Drill presses, Vertical Boring machines, Engine Lathes, Vertical Turret Lathes, Turret Lathes, Cylinder Grinders, Tool Grinders, Grinders and Chippers, Milling Machines, Gear Cutters, Broaches, Internal Thread Machines, External Thread Machines, Punch Presses, and Hyde Press Machines. The group classified as Miscellaneous included mostly unskilled labor groups.

All test scores for each job group were analyzed against the criterion of Success-on-the-Job ratings. Correlation coefficients (validities) were calculated for all relationships that seemed promising. In some cases, for some job groups, test scores were combined in order to determine whether greater validity and reliability might result. No test, or combination of tests, was finally recommended for use in placement unless the validity coefficient was at least .50, with a critical ratio well beyond the strictest standards for statistical significance.

MEDIAN TEST SCORES BY JOB CLASSIFICATION

Group	N		Bennett Mechanical	Kellogg-Morton Beta	Minnesota Rate of Manipulation*		Thurstone Identical Forms	Wonderlic Personnel
	Men	Women			Turning	Placing		
Assembly	96	44	32	78	No data		32	12
Cranemen	30	4	18	60	No data		24	7
Inspectors	49	20	36	82	No data		35	18
Machine Operators	152	59	28	63	243	205	28	13
Arc Welders	62	35	28	77	No data		36	13
Miscellaneous	173	24	23	51	No data		19	9
Total	562	186						

* The scores on both parts of the Minnesota Rate of Manipulation test are in terms of number of seconds required to complete the task. Therefore, the lower the score, the better the performance.

TABLE 3.

Tests or combinations of tests which were finally determined upon for each job were then studied to determine the critical score. The "critical score" is the level of performance that all candidates for a given job must reach or exceed in order to be considered for placement on that job. Where one test proves valid for predicting success on two or more jobs, a different critical score may have to be set for each job. The point to be emphasized here is that even well-standardized tests need to be custom-tailored to the particular needs of the company using them.

Table 4, following, is a scatter diagram showing how the critical score of the Identical Forms test was set, i.e., at a point where none of the outstanding and only a few of the above average men are eliminated, but all but one of the very poor and most of the below average are excluded. As can be seen, had this test been in use for placement of welders, a large proportion of the less

successful welders would have been put on other jobs. The 97 cases include 62 men and 35 women. The figures under each of the four success-rated groups show the number in that group with test scores in the interval indicated at the side.

COMPARISON OF IDENTICAL FORMS TEST SCORES WITH SUCCESS AS WELDER

Scores	Success-on-the-Job Rating				
	Very Poor	Below Average	Above Average	Outstanding	
51–over	1	4		2	
48–50		1		2	
45–47			2	5	
42–44			8	2	
39–41		1	8		
36–38		2	11		Critical
33–35		2			Score
30–32	2		2		
27–29	1	11	4		
24–26	1	4			
21–23		3			
18–20		8			
15–17	1	5			
12–14	3				
9–11	1				
Totals....	10	41	35	11	

Median Score—36
Correlation (Validity) = .64 ± .040
TABLE 4.

Similar tables could be shown for all the valid tests in each job classification. However, a listing of the results that were the basis for the final recommendations for the use of the tests should suffice:

Assemblymen. A combined score of 55 or better, obtained by adding the scores of the Bennett Mechanical Test and the Thurstone Identical Forms Test together, should be required of all assemblymen. This standard would have eliminated 86% of the "very poor" rated workers, 52% of the "below average" rated workers, only 11% of the "above average" rated workers, and none of the "outstanding" rated workers in this job classification. Those who fail to make a combined score of 55 on these two tests would have a much better chance of success on some other job more suited to their abilities. (140 cases; validity, .66 ± .03).

Cranemen. Candidates for jobs as cranemen should score 15 or better on the Bennett Mechanical Comprehension Test. This standard would have eliminated 80% of the "below average" rated cranemen, only 14% of the "above average" rated cranemen, and none of the "outstanding" rated cranemen. There were no cranemen with the lowest Success-on-the-Job rating of "very poor." (33 cases; validity, .65 ± .07)

Inspectors. Inspectors should score 36 or better on the Thurstone Identical Forms Test. This standard would have eliminated *all* of the "very poor" rated inspectors, 90% of the "below average" rated inspectors, only 19% of the "above average" rated inspectors, and none of the "outstanding" rated inspectors. Practically the same results could be obtained by use of the Kellogg-Morton Revised Beta Test, but since this test is much longer and more difficult to administer, and also because the Beta test does not give as good results with women inspectors, only the Thurstone Identical Forms Test is recommended for use with this job classification. (69 cases; validity, .71 ± .04)

Machine Operators. No test standards were determined for this occupation group since the findings were not sufficiently conclusive. This was probably due to the miscellaneous nature of the jobs included under this heading. (152 cases)

Welders. Electric-arc welders should score 36 or better on the Thurstone Identical Forms Test. Use of this standard would have eliminated 90% of the "very poor" rated welders, 80% of the "below average" rated welders, only 17% of the "above average" rated welders and none of the "outstanding" rated welders (see Table 4). It must be noted that these standards should be used only for electric-arc welders. There is no justification for assuming that other types of welding require the speed and accuracy of perception measured by the Thurstone Identical Forms Test. (97 cases; validity, .64 ± .04)

Miscellaneous. No test standards are suggested for any of the job classifications grouped as "Miscellaneous." There is no evidence that any of the test scores are valid for predicting success-on-the-job for any of the unskilled work classifications, and the number of cases in the skilled work classifications were too small for statistically significant results.

Taking the findings of this investigation as a whole, it is apparent that the initial decision to hire or reject applicants for plant jobs in this Company should be based solely on the use of the Patterned Interview, preceded by the Telephone Check.

All applicants who are rated as "4" on the Patterned Interview should be rejected, regardless of the

less homogeneous job groups, i.e., assembly workers, cranemen, etc. Each group was then analyzed separately. Correlations in each job group between test scores and Success-on-the-Job ratings were calculated for men alone and again for men and women combined.

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company's need for help. The evidence clearly indicates that members of this group will almost certainly be a liability to the company. Applicants who are rated "3" on the interview are of questionable desirability and should be hired only when the demand for new employes is greater than can be satisfied by the number of applicants who are rated "1" or "2." Applicants who are rated as "1" on the Patterned Interview tend to be unusually valuable employes. Such applicants should be placed on the payroll whenever possible, even though no job requiring their specific skills is open at the time of their application.

It should be emphasized, however, that the effectiveness of the standardized or Patterned Interview is dependent almost entirely on the caliber and training of the personnel who use it. The results obtained with the Link-Belt Ordnance Company during the period covered by this study can be duplicated only if interviewers of comparable ability and training are used. (Technical training in psychology and psychiatry is unnecessary, but it is imperative that the interviewer have better-than-average intelligence, a well-adjusted personality, and an interest in the work.)

The interview procedure is directed primarily at uncovering such personality characteristics as stability, industry, ability to get along with others, personality adjustment, emotional maturity, motivation, and comparable traits. Nevertheless, since no significant differences in personality patterns were found to be characteristic of the various job classifications studied, it is reasonable to assume that competent use of the Patterned Interview technique could be extended to include the processing of applicants for plant personnel in other job classifications than those covered in this particular study.

In addition to those tests which were found directly valuable in predicting success on specific jobs, one of the other tests studied has some worth as an aid in *placement*. This is the *Wonderlic Personnel Test* (a measure of general intelligence which, although not directly correlated with success on specific jobs, has usefulness in other contexts). Thus intelligence is important in placement because it has been found that a low level constitutes a distinct handicap where the individual must engage in work requiring judgment, initiative and the capacity for creative thinking. Inversely, a high level of intelligence is a distinct handicap where the work is of a routine, monotonous character offering little or no challenge.

The findings of this test are especially valuable if the individual is subsequently to be considered for a promotion. Experience has proved that supervisors who score below 18 on this test have extreme difficulty in mastering the abstract elements of their duties. If this test is given at the time of application, the record may be consulted when future up-grading is considered. Thus, there will not later be a need for test sessions with the candidates for promotion to a supervisory capacity. With their test records available, those who are rejected need never know they were being considered.

Summary

This study emphasizes three pertinent points in the development of selection and placement procedures, namely:

1. The *selection* of "good" employes appears to be best accomplished by using standardized Patterned Interview methods based on the simple premise that the best basis on which to predict what a man will do in the future is to review carefully what he has done in the past. In other words, personality patterns seldom change much. This thesis is strongly supported by the validity of .68 in the prediction of job success for a heterogenous group of factory workers, even though with this particular group no scientific methods of placement were being used.

2. The *placement* and ultimate success of selected "good" employes can be materially improved in many job classifications through the use of psychological tests which have been previously validated on company personnel.

3. Comparative rating techniques, when properly handled, provide useful and consistent criterion evaluations. Supervisors' ratings showed fairly high intercorrelations with each other and with ratings based on production records.

Necrology

WILLIAM E. MOSHER

1877–1945

The untimely death of William E. Mosher has taken from us one of the truly great figures in the history of the science and art of management. While Dean Mosher devoted most of his time and energy to the field of public administration, he never permitted this concentration to dwarf his perspective or to blind him to the essential oneness of all managerial problems. His many published works bear eloquent testimony to his central belief that a broad science of management is not only a possibility, but a necessity. This view he successfully instilled in his many students and, through them, his influence on management practices in both government and industry has been steadily magnified.

Will Mosher was a great humanitarian. It was through his interest in people and in human relations that he was led to concentrate his boundless energy and his large talents upon the improvement of management methods. An organization was to be judged in terms of its effects upon human beings and it was an efficient organization to the extent that it provided scope for the creative participation and growth of its members and employes. Such views led him inevitably to concern himself with the problems of personnel administration, and I think it is true to say that no man in our time played so large a role as he in the transformation which public personnel administration has undergone in the past fifteen years.

One other characteristic I like particularly to recall. Will Mosher, for all his deep scholarship, was no man to dwell in an ivory tower. His was a rare combination of idealism, sound learning and intense practicality. The world was his laboratory and his students learned by doing. Applied scholarship was what concerned him, and in the Maxwell Graduate School, which now remains as a monument to his memory, he successfully bridged the traditional chasm between the academic and non-academic worlds. Administrator, scholar, reformer, active citizen, he exemplified in his own life the precepts which formed the foundation of his writing and teaching. He leaves as his legacy an ever-widening appreciation of the human factors in industry and government and a constantly expanding interest in scientific management and administration. To his many friends he leaves also the memory of a great and good man who valued creative citizenship above all personal considerations.

J. Donald Kingsley

BOOK REVIEWS

Top-Management Planning: Methods Needed for Post-war Orientation of Industrial Companies. By Edward H. Hempel, Harper & Brothers, New York and London, 1945, pp. xiii, 414. ($4.50)

Reviewed by H. S. Person, *Economic and Management Consultant,* New York City.

This book, of a type long overdue, had its immediate stimulation in the problem of reconversion, although its concern is primarily with the long trend that orients top-management for consideration of immediate adjustments. This book would have been helpful in the difficult years preceding and following 1929; and it will be particularly helpful during the fateful years immediately ahead. For if ever planning were needed it is needed today; planning of a scope that includes not only departmental or functional planning for marketing and for production, but especially over-all planning with the perspective of directors and chief executives.

The book is divided into five main sections: Size Planning (in which sales forecasting is considered a basis of all size planning); Product Planning (items selection and production programs); Process Planning; Machine Planning; and Plant Location, Activity Area and Plant Planning. A final chapter sums up the above five elements of top-management planning into a system.

Every book has its bias and this one is no exception. The author is an engineer (Assistant Professor of Industrial Engineering, Columbia University), and the emphasis is on physical things—plant, size, products, machines, processes. Also, in general the illustrative cases are drawn from highly mechanized industries. The author makes a distinction among economic planning, top-management or orientation planning, and work-detail or production planning, and admittedly he does not include the first and last of the above trio. His concept of orientation planning is as indicated by the section headings noted above. But are not economic adjustments and labor relations of the very essence of top-management responsibility?

However, if a book's bias is understood, especially in advance of reading, its values may be realized. This one has many. It is concerned with a major area of top-management responsibility —the area that determines the commitment of the capital of an enterprise to fixed forms. It is realistic in that it is concerned

with aspects of management that may be measured and evaluated, and the author knows his field. Above all, it directs the chief executive's attention to the fact that there is a level on which he is responsible for planning with the over-all perspective, and that he cannot leave all planning to associate executives with only limited perspectives. In this respect the book is pioneer.

Democracy Under Pressure. By Stuart Chase, The Twentieth Century Fund, New York, 1945, pp. 142. ($1.00)

Reviewed by MARSHALL E. DIMOCK, Northwestern University.

American Democracy, says Mr. Chase, is under pressure from the "Big Three," Business, Labor and Agriculture. Organized selfishness threatens to create an explosive force almost as powerful as war. The pressure boys assume that they can go it alone. They "seem to be largely led by men who are ignorant of the fact that we are our brothers' keepers." The author cannot fairly be accused of favoritism in his indictment because he criticizes all three interests equally.

There is a lot of useful and well-organized material in this little book. Moreover, like most of Stuart Chase's writing, it is easy to read. Its very condensation, however, sometimes leads to oversimplifications that on careful reading sound suspiciously like half-truths. This danger, I suppose, is inevitable in a book with plenty of punch.

The last part of the book should interest readers of this *Journal* more than any other. Our author takes us up to a "Mountain Conference" where the "Big Three" have finally agreed to get together, take stock of the common interest, bring forth the facts, and do a little planning. It is an effective epilogue. This part is more convincing than Chase's suggestion that restraint can be used to cope with lobbies and pressure groups. In a democracy we should rely chiefly upon education and persuasion. This book helps that cause along. It will make a lot of people angry, but I shouldn't be surprised if seventy-five per cent conclude that Stuart Chase has hit the nail on the head, once they think it over.

Business Leadership in the Large Corporation. By Robert A. Gordon, The Brookings Institution, Washington, D. C., 1945, pp. 351. ($3.00)

Reviewed by MARSHALL E. DIMOCK, Northwestern University.

The material in this book is based upon Berle and Means' *The Modern Corporation and Private Property*, the T. N. E. C. monographs, plus some interviews and additional material secured by the author during the course of his studies in 1935–38 and 1939–41. The readers of this *Journal* will therefore find some new material. For the most part, however, the principal interest of the initiated will be in the synthesis and methodology of the author.

Ten years ago Gardiner Means, one of the authors of *The Modern Corporation and Private Property*—himself, like Robert Gordon, a professional economist—advised a "political science" approach to the central problems of economics. Since that time Robert Brady, an economist, and several political scientists have done work of the nature suggested. The present author, who had already written several articles, is a new and promising worker in these vineyards.

He describes his area of interest as "the relation between active entrepreneurs and the *control* allegedly exercised by large stockholders, bankers, and others." The word "leadership" in the title seems to this reviewer not as apt as the word "control," just cited in Gordon's own statement of objective. He deals with the relative influence, in decision-making, of the following parties of interest: the chief executive, the management group as a whole, the board of directors, stockholders, financial groups, the government, and a general category called "interest groups." The executives have the greatest influence; the chief executive more than other executives; bankers usually do not dictate directly.

E. G. Nourse, who writes the Preface, points out that this is one of the first books by an economist in which the "institutional" approach is applied to the internal workings and internal controls of business institutions. The claim is justified. The fact that a start has been made in this area is the most exciting thing about the book. Unfortunately, however, there is altogether too much justification, at many points, for Mr. Nourse's prefatory comment that, "To the corporate executive it may at first glance seem that the book recites in tedious professorial style only what every businessman knows." The author seems to have a good working knowledge of the book by Holden and others entitled, *Top-Management Organization and Control* but he suggests (p. 12) that there is little else in the management literature bearing upon his central problem. In this reviewer's opinion, a more extensive reading in the pages of journals such as this would assist Mr. Gordon materially in future studies he may make in this field. The important point, however, is that he has made a good start toward coordinating economics, business management, and political science concepts and methods in a unified attack upon problems than which there are few more crucial.

The Settlement of Industrial Disputes. By Kurt Braun, Philadelphia, The Blakiston Company, 1944, pp. 306. ($3.50)

Reviewed by HERMAN FELDMAN, The Amos Tuck School of Business, Dartmouth College.

This volume is a broad descriptive review of mediation, conciliation and arbitration as these exist in the federal, state and local governments of the United States, and of labor courts chiefly as they were found in a republican pre-Nazi Germany. Its emphasis is upon the structure and procedure of such agencies, private and governmental, and as such it contains comprehensive factual information which give it a valuable place in the literature of labor. The book states, however, that it intends to serve the practical needs of the men and women who have to do the work of settlement or who are interested in the problems of labor relations because they have to face them in their daily work. For that reason the reader looks particularly for the background of wisdom and practical observation which yield insight as to how human beings act under arbitration, and how this may be most effectively managed.

Our search is in vain for the intimate problems which an arbitrator or conciliator encounters and which explain motivation and behavior. For example, why, as in one instance in the present reviewer's experience, do a union and an employer who have agreed on every other issue in a contract require almost as much time (and can with difficulty be reconciled) on the mere question as to which of two of the chief national agencies described should be designated as their future arbitrator? Throughout, the author seems to disregard the living experience which one might expect from a realistic analysis. Thus the presentation deals with anatomy rather than vital and interesting physiology of labor relations.

The Law of Intelligent Action—Applied in Business Relations. By William J. Reilly, Ph. D., Harper and Brothers, New York, 1945, pp. 125 ($2.00)
Reviewed by THOMAS A. BAGGS.

Is there a law or set of principles which, fittingly applied, will enable an individual to act intelligently in most of his business relations? Mr. Reilly answers this sizable question in the affirmative and in a manner calculated to convince even the skeptics. Taking a broad approach, he defines intelligence as the ability to solve the problems of one's environment and then breaks down that ability into three determining factors. His argument: find a man possessing these three factors in sufficient degree and you master the problem at any level. Personnel evaluation, yes, but not any cut-and-dried point or percentage system! A more comprehensive, but still exact method, especially suited for the use of management executives. Simple, workable, widely applicable—in truth, a law! Master it, as you quickly can, and you have a principle that appears to work in practically every business situation where the human element predominates. For evaluating executives in office, plant and field, from foreman to president, it is practical and surprisingly accurate. The book tells about it with an abundance of case-histories and illustrations in point. Here is keen analysis, mature judgment and very considerable wisdom. Frankly, I don't know where else you could find in 125 pages so much that is of interest and concern and solid worth to the owners and managers of business today.

Management of Inspection and Quality Control. By J. M. Juran, Harper & Brothers, New York and London, 1945, pp. 233 ($3.00).
Reviewed by J. K. LOUDEN, Production Manager, Glass and Closure Production, Armstrong Cork Company.

The quality problems generated by the war have been a mixed blessing to management. Many companies were suddenly confronted with problems of precision in specification, manufacture, and measurement well beyond anything in their experience. Yet they solved these problems. On the other hand, there was in the main no vital competitive urge to keep the cost of this high precision manufacture to a minimum. In consequence, the cost of inspection, the cost in rejects, reworks and scrap, was, by competitive standards, high in many cases. Thus the new quality problems were solved, but at a price.

The substantial remaining war production and the peace-time production to follow continue to pose problems in high precision manufacture, but with more and more emphasis on securing necessary quality at minimum cost. Here, as in all phases and functions of business, costs must not play a secondary role as they have by necessity during the war. This book, a pioneer work on management of the inspection function, analyzes and discusses this problem in a practical and refreshing way. Drawn from personal experience on the factory floor and in the engineering and managerial offices, the book goes far to fill a noticeable gap in existing management literature.

The void in the literature has been present in all phases of the inspection function, with the possible exception of the considerable material written on the Shewhart Control Chart. Even here, the existing literature leans toward the statistical problems rather than towards the management problems of making this new tool effective. As Mr. Juran points out, many problems of organization and human relations must precede the utilization of this or any other management tool.

The author, through his years of experience, is at home in the problems of specifications, measurement, accuracy of inspectors, conformance, acceptance and control sampling, organization, and wage determination for inspectors. He divides the subject matter logically and dwells on each point to at least effectively lay a pattern for the reader to follow. While the book is virtually devoid of charts or pictures, the author achieves clarity through skillful diction and through sharply drawn examples from his shop experience.

While the book may find its first greatest attraction in the man in the shop, it is in the top management problems on the inspection function, however, that the book may find its greatest influence. The latter part of the book, devoted to "Top Management Controls of the Inspection Department," "Quality-Mindedness," and "Introducing a System of Modern Quality Control Techniques," contains many considerations and discussions of problems related to inspection which are vital to top management.

As an aid to the reader, the author had placed at the beginning of each chapter an outline of the facts to be covered in that chapter. Then each one is taken up individually and is properly labeled by a sub-title. Of particular interest are the principles stated at the end of each chapter as a "summary" of the material presented in that chapter.

Any pioneer work in an important field is an important book. Fortunately, this volume is most carefully done. It is immediately valuable to top management quite as much as to shop supervisors and engineers. It is further recommended to sales engineers and sales managers whose work requires them to contact customers on matters that may involve quality and adherence to specifications. For the management authors of tomorrow it provides a first reference book on the inspection function.

Manpower in Marketing. By Eugene J. Benge, Harper & Brothers, New York, 1945, pp. 249 ($4.00).
Reviewed by ARTHUR A. HOOD, Director, Dealer Relations, Johns-Manville Sales Corporation.

With the bibliography of texts on Selling and Sales Management numbering hundreds of titles, today's reader seeks, and the author must provide, justification for new material added to the shelf.

Mr. Benge sets the tone of the book ***Manpower in Marketing*** by the use of the term, "the new marketing," in his preface. He also confides, on page 1, that "economic circumstances has compelled the sales manager to evolve into a coordinator of distribution."

But it is in his approach to increasing sales and profits through the selection and development of men and women, that the author hits the key note of tomorrow's operations. Here is a belief that most business problems in the future will be synthesized at the level of human relations. In his anxiety to provide the new, the advanced and the scientific, the author has wisely avoided the error of neglecting the fundamentals. As human nature changes are exceedingly slow and rare, so the fundamentals of personal selling remain essentially the same. Here, then, we have a weighing of the familiar with the latest strategies, tactics and procedures in sales administration. This balance holds throughout the subject matter from the early chapters on Job Specification; Rating and Analysis; Interviewing Techniques; attitudes, aptitudes and traits;—through the material devoted to training methods and tools; Compensation Strategies; Quotas and Budgets; Incentive and Bonus Plans; and, finally, into the administration section, which includes a self rating scale for the sales manager.

The material on Organization for Training is especially effective and realistic. For example, on the controversial subject of Aptitude Testing, we find the warning, on page 95, "sales managers will hold the ***show me*** viewpoint when utilizing techniques of this type."

The book is weighted, logically, with the three divisions of the sales manager's task in devoting one-third of the pages to Recruiting and Selection of Salesmen, one-third to Training of Manpower, and one-third to Administration and Control. Because, as the author says, "the character of sales management is changing as rapidly as production management did forty years ago" . . . "the sales manager cannot, and should not, divest himself of responsibility for planning." For the sales manager who accepts this responsibility, here is an objective, comprehensive compendium of scientific procedures. The volume is replete with helpful check lists, operating guides, charts and graphs, some of them quite ingenuous and intriguing in content, viz., one is called the "Sales Manalyzer."

If the work does not quite implement the author's term "Coordinator of Distribution," it carries the subject to the point which calls for a further discussion of the mechanics of distribution aside from manpower. Perhaps that is as the author intended it. Mr. Benge's approach is that of the management engineer, the flavor of the work is professional, and these give further support to the statement that the book is modestly priced at $4.00. At last we have the proper emphasis on the ***Man*** in Sales ***Man***agement.

Union Policy and Incentive Wage Methods. By Van Dusen Kennedy, Columbia University Press, New York, 1945, pp. 260, ($3.00).

Reviewed by HERMAN FELDMAN, Amos Tuck School of Business Administration, Dartmouth College.

Union attitudes toward time and job study and incentive wage methods have come to the fore again as a vital issue in postwar industrial relations, particularly if present reactions under disturbed factional tension may harden into permanent obstacles to the use of this key sector of scientific management. This book, the outgrowth of a study made under the Division of Industrial Relations of the U. S. Bureau of Labor Statistics, is a review of the problem based on the reading of the literature and on field work comprising nearly sixty visits "to individual plants or local bargaining situations."

In describing time study methods, the survey points out the subjective elements in the engineer's work, debunking many prevalent practices and leaving the impression that only a small minority of concerns are using this delicate instrument with a sufficient degree of skill, objectivity and tact. Following this, the chief bases of opposition to piece work and incentive methods by workers and union leaders are thoroughly discussed: hostility to the nature of incentive payment as such and the extra work and difficulties it creates for union officials, criticism of job study techniques, dissatisfaction with faulty management administration, and suspicion of employers' motives and fairness.

That on the part of workers and unions "prejudice and plain ignorance" enter the picture, that custom rather than logic and that sentiment rather than rationalism are important factors in the acceptance or opposition to the use of incentive methods, is freely admitted. Yet the hopeful conclusion is drawn that while the weight of opinion against pay by results has not shifted, "there are more exceptions to the former unqualified opposition in both national and local offices. There is wider acceptance of the view that workers may be protected adequately by genuine collective bargaining" and that incentive methods may even aid in increasing the standard of living.

Restrictions of output are recorded, but attention is also called to the significant number of instances in which local unions joined with employers in asking the National War Labor Board to approve the introduction of incentive schemes in plants previously on hourly rates. The actual extent of union participation in the development of incentive methods is realistically reexamined but the rather forced conclusion is made that with a fine type of management "the desire of workers to share in management functions will be seen not as a threat but as a potential contribution to industrial stability."

In form, this long book consists of only six chapters, has practically no subheads, many overlong paragraphs and some rehash of old material, and it contains case histories which would be more interesting if substantially weeded and more closely trimmed. But it shows evidence of thorough workmanship and careful writing and is a valuable source book on a vital phase of labor-management relations.